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HARVARD COLLEGE OBSERVATORY.

RESULTS

OF

OBSERVATIONS OF THE FIXED STARS

MADE WITH THE

MERIDIAN CIRCLE

AT THE

GOVERNMENT OBSERVATORY MADRAS

IN THE YEARS 1883, 1884, 1885, 1886, AND 1887

UNDER THE DIRECTION OF THE LATE

NORMAN ROBERT POGSON, C.I.E., F.R.A.S.

BY

C. MICHIE SMITH, B.Sc., F.R.A.S., F.R.S.E.

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INTRODUCTION.

This volume contains the results of the observations made with the Madras Meridian Circle in the years 1883–87 and completes the series of volumes preliminary to the general catalogue. The number of observations made during this period was only 4052, since after 1883 few observations were made except those required to complete the full number for each star in the list. The observers were the same as in the previous three years and no change has been made in the method of reduction.

The reductions have been revised throughout using corrected values for the meridian errors.

With this volume are also issued lists of the corrections that have to to be applied to the results in volume I. to VI. on account of erroneous determinations of meridian error. The most serious errors were due to the use of the stars R. P. L. 14 (Groombridge 195), referred to in last volume, and 24 Cephei (Hev.). The position of this latter star was apparently taken from the *Radcliffe Polar List* and was brought up without the application of any proper motion. No proper motion is ascribed to this star either in the *Greenwich nine-year Catalogue* or in the *Williams College Catalogue*, but Carrington notes it is a proper motion star and there can be little doubt that it has a considerable proper motion. The positions given 5 for 18~~8~~5 in the *Redhill* and *Radcliffe* catalogues agree fairly well with each other but differ by about 12ʺ from the place given by Safford's observations in 1883. As this star was in certain years frequently used for the determination of the azimuth it is evident that very serious errors were introduced. These errors ought certainly to have been discovered at an early date, but several circumstances conspired to conceal them. Into these it is not necessay to enter in detail here, but I may point out that when I took up the work in 1891, I had no experience either of the accuracy of the observations or of the steadiness of the instrument, and I underestimated both. The corrections that have now been applied show that the older observations especially were very good and that the instrument was remarkably stable. After heavy rain there is usually a considerable and rapid change in the meridian error, but at other times changes are slow and progressive. Heavy rains are, I believe, responsible for a few outstanding cases of uncertain meridian error, for on a small number of days the error has had to be obtained by interpolation between days before and after such rain, but the number of observations affected is not great and the uncertainty lies between moderate limits.

One point that comes out clearly as a result of the investigation of the meridian errors is that for satisfactory work in low latitudes it is necessary to have either a much larger list of polar stars whose positions are accurately determined, or to have a good meridian mark. There are many nights here when good observations can be got of stars at a considerable altitude though it is quite impossible to get any observations of stars below the pole or even within 10° above the pole, and on a good many other nights stars below the pole are so unsteady that they, at times, appear to dance backwards and forwards across the wires. In the great majority of observations of polar stars the transits were taken over only three wires, and in many cases there was a considerable divergence between the times given by the different wires; passing clouds frequently prevented even three consecutive wires from being observed. With highly trained observers it is probable that better results would have been obtained by using the R. A. micrometer and observing a number of transits over the middle wire, but with the observers available for the work here this would have only led to increased errors, for it was found necessary even to give up the use of the P. D. micrometer. So long as the work was simple and purely routine good results were obtained, but the least complexity or interference with the routine was fatal.

It has not been considered necessary to print all the corrections that have been made. In most cases corrections have been entered in the *errata* only when they affected the mean place of the star for any year by more than $0^{s}{\cdot}02$, but all corrections affecting the separate results to the extent of $0^{s}{\cdot}01$ have been entered in the working copies and will be taken into account in forming the catalogue places.

Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		s	″	s	s	s	s	
Jan. 1	R	− 4·6	0·0	+0·25	+0·32	+0·03	+0·33	35 and 117 R. P. L.
2	,,	− 4·7	0·0	+0·27	+0·33	+0·04	+0·27	34, 35 & 100, 118 R. P. L.
3	,,	− 4·8	0·0	+0·38	+0·35	+0·03	+0·26	34 and 118 R. P. L.
4	,,	− 6·8	0·0	+0·45	+0·33	+0·02	+0·31	37 and 117 R. P. L.
5	,,	− 7·2	0·0	+0·45	+0·33	+0·04	+0·33	2 Ursæ Minoris and 117 R. P. L.
8	M	− 5·9	0·0	+0·45	+0·32	+0·03	+0·29	37 and 118 R. P. L.
9	,,	− 6·8	0·0	+0·45	+0·32	+0·04	+0·30	37 and 118 R. P. L.
11	,,	− 6·7	0·0	+0·57	+0·32	+0·04	+0·30	
12	,,	− 7·6	0·0	+0·56	+0·34	+0·04	+0·30	37 and 110, 117 R. P. L.
15	,,	− 8·0	0·0	+0·33	+0·34	+0·04	+0·29	37, 39, 40, and 114, 117 R. P. L.
16	,,	− 7·7	0·0	+0·32	+0·33	+0·03	+0·25	37, 39, 40, and 110, 114, 117 R. P. L.
17	,,	− 7·7	0·0	+0·34	+0·34	+0·04	+0·30	37, 39 and 110, 114, 117 R. P. L.
18	,,	− 7·5	0·0	+0·40	+0·32	+0·05	+0·30	37, 39, 40, 43, and 116, 120 R. P L.
19	,,	− 7·8	0·0	+0·43	+0·33	+0·04	+0·31	37, 41, 43 and 117, 118, 120 R. P. L.
20	,,	− 7·0	0·0	+0·45	+0·34	+0·04	+0·32	37, 39, 43 and 116 R. P. L.
22	,,	− 6·8	0·0	+0·45	+0·35	+0·04	+0·34	39 and 116 R. P. L.
24	,,	− 7·3	0·0	+0·46	+0·36	+0·04	+0·32	43, 117 and 118 R. P. L.
25	,,	− 6·7	0·0	+0·52	+0·36	+0·04	+0·34	39, 43 and 117 R. P. L.
26	,,	− 6·9	0·0	+0·56	+0·34	+0·04	+0·32	
27	,,	− 6·8	0·0	+0·56	+0·36	+0·04	+0·30	39 and 116, 120, 133 R.P.L.
29	,,	− 7·4	0·0	+0·64	+0·37	+0·04	+0·32	
30	,,	− 7·5	0·0	+0·58	+0·37	+0·04	+0·32	39 and 116, 120, 133 R.P.L.
31	,,	− 7·1	0·0	+0·49	+0·40	+0·03	+0·30	39 and 120, R. P. L.
Feb. 1	R	− 10·1	0·0	+0·55	+0·41	+0·04	+0·30	118 and 133 R. P. L.
2	,,	− 8·9	0·0	+0·55	+0·42	+0·04	+0·30	118 and 133 R. P. L.
3	,,	− 9·0	0·0	+0·54	+0·42	+0·04	+0·31	
5	,,	− 9·1	0·0	+0·69	+0·40	+0·04	+0·31	
6	M	− 9·3	0·0	+0·66	+0·38	+0·04	+0·32	
7	,,	− 7·7	0·0	+0·60	+0·39	+0·04	+0·32	118 and 134 R. P. L.
8	R	− 8·0	0·0	+0·53	+0·40	+0·04	+0·33	51 Cephei and 120, 133 R. P. L.
9	,,	− 8·2	0·0	+0·55	+0·39	+0·04	+0·34	51 Cephei and 120 R. P. L.
10	,,	− 9·5	0·0	+0·57	+0·42	+0·02	+0·37	51 Cephei and 120, 134 R. P. L.
12	,,	− 9·9	0·0	+0·55	+0·38	+0·04	+0·35	51 Cephei and 120 R. P. L.
13	,,	− 10·0	0·0	+0·59	+0·39	+0·03	+0·28	51 Cephei and 134 R. P. L.
14	,,	− 9·4	0·0	+0·58	+0·41	+0·04	+0·33	51 Cephei and 120, 134 R. P. L.
15	,,	− 9·1	0·0	+0·55	+0·38	+0·04	+0·32	51 Cephei and 134 R. P. L.
16	,,	− 9·5	0·0	+0·54	+0·39	+0·03	+0·33	
17	,,	− 8·5	0·0	+0·54	+0·42	+0·04	+0·44	
19	,,	− 9·3	0·0	+0·61	+0·41	+0·03	+0·35	51 Cephei and 134 R. P. L.
20	,,	− 9·3	0·0	+0·63	+0·40	+0·03	+0·37	51 Cephei and 134 R. P. L.
21	,,	− 8·6	0·0	+0·61	+0·38	+0·02	+0·36	
22	,,	− 9·0	0·0	+0·62	+0·39	+0·03	+0·35	
23	,,	− 8·5	0·0	+0·66	+0·38	+0·04	+0·35	
24	,,	− 9·5	0·0	+0·67	+0·37	+0·03	+0·34	51 Cephei and 134 R. P. L.
26	,,	− 9·5	0·0	+0·60	+0·42	+0·04	+0·31	
27	,,	− 9·3	0·0	+0·60	+0·43	+0·04	+0·30	
28	,,	− 9·7	0·0	+0·65	+0·48	+0·04	+0·29	82 and 134 R. P. L.
Mar. 1	,,	− 10·8	0·0	+0·66	+0·46	+0·02	+0·30	

Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining stars.
		″	″	s	s	s	s	
Apl. 3	M	− 7·6	0·0	+ 0·48	+ 0·56	+ 0·04	+ 0·48	82 R. P. L. and Polaris.
4	”	− 6·2	0·0	+ 0·49	+ 0·58	+ 0·04	+ 0·50	82 R. P. L. and Polaris.
5	”	− 7·0	0·0	+ 0·56	+ 0·59	+ 0·04	+ 0·51	82 R. P. L. and Polaris.
6	”	− 5·9	0·0	+ 0·40	+ 0·59	+ 0·03	+ 0·50	72, 82, R. P. L. & Polaris.
7	”	− 5·8	0·0	+ 0·29	+ 0·60	+ 0·03	+ 0·51	82 R. P. L. and Polaris.
9	”	− 6·8	0·0	+ 0·42	+ 0·58	+ 0·03	+ 0·52	82 R. P. L. and Polaris.
10	”	− 6·0	0·0	+ 0·46	+ 0·53	+ 0·03	+ 0·52	
11	”	− 6·7	0·0	+ 0·49	+ 0·58	+ 0·03	+ 0·52	
12	”	− 6·8	0·0	+ 0·51	+ 0·58	+ 0·03	+ 0·52	
13	”	− 5·9	0·0	+ 0·55	+ 0·53	+ 0·03	+ 0·53	
14	”	− 6·5	0·0	+ 0·49	+ 0·60	+ 0·03	+ 0·53	
16	”	− 5·7	0·0	+ 0·55	+ 0·58	+ 0·03	+ 0·53	82 R. P. L. and Polaris.
17	”	− 6·6	0·0	+ 0·59	+ 0·58	+ 0·03	+ 0·52	82 R. P. L. and Polaris.
18	”	− 5·8	0·0	+ 0·53	+ 0·59	+ 0·03	+ 0·55	
19	”	− 5·7	0·0	+ 0·53	+ 0·61	+ 0·03	+ 0·57	
20	”	− 5·7	0·0	+ 0·57	+ 0·62	+ 0·03	+ 0·60	
21	”	− 4·9	0·0	+ 0·56	+ 0·63	+ 0·04	+ 0·62	82 R. P. L. and Polaris.
23	”	− 6·8	0·0	+ 0·42	+ 0·60	+ 0·03	+ 0·60	
24	”	− 6·7	0·0	+ 0·41	+ 0·62	+ 0·03	+ 0·59	
25	”	− 5·5	0·0	+ 0·49	+ 0·65	+ 0 04	+ 0·59	
26	”	− 5·6	0·0	+ 0·51	+ 0·65	+ 0·02	+ 0·58	
28	”	− 4·8	0·0	+ 0·44	+ 0·66	+ 0·03	+ 0·56	
30	”	− 5·0	0·0	+ 0·37	+ 0·65	+ 0·03	+ 0·55	
May 1	R	− 5·8	− 0·1	+ 0·06	+ 0·70	+ 0·03	+ 0·54	
2	”	− 5·4	− 0·1	− 0·26	+ 0·66	+ 0·03	+ 0·53	
3	”	− 5·5	− 0·1	− 0·28	+ 0·65	+ 0·03	+ 0·52	111 R. P. L. and Polaris.
4	”	− 6·4	− 0·1	− 0·26	+ 0·64	+ 0·03	+ 0·55	
5	”	− 6·3	− 0·1	− 0·26	+ 0·67	+ 0·03	+ 0·57	110, 116 and 26 R. P. L. Polaris.
7	”	− 6·6	− 0·1	− 0·26	+ 0·70	+ 0·03	+ 0·58	116, & 37 R. P. L., Polaris.
8	”	− 6·6	− 0·1	− 0·26	+ 0·66	+ 0·02	+ 0·53	116 R. P. L. and Polaris.
9	”	− 6·5	− 0·1	− 0·23	+ 0·69	+ 0·03	+ 0·56	116 R. P. L. and Polaris.
10	”	− 6·6	− 0·1	− 0·22	+ 0·67	+ 0·02	+ 0·56	
11	”	− 6·6	− 0·1	− 0·21	+ 0·69	+ 0·04	+ 0·57	
12	”	− 5·9	− 0·1	− 0·16	+ 0·71	+ 0·03	+ 0·57	116 R. P. L., ε Urs. Min. and 37 R. P. L.
14	”	− 5·6	− 0·1	− 0·21	+ 0·70	+ 0·04	+ 0·58	
15	”	− 5·4	− 0·1	− 0·19	+ 0·69	+ 0·03	+ 0·59	
18	”	− 5·0	− 0·1	+ 0·01	+ 0·76	+ 0·04	+ 0·61	117, 120, and 39, 40 R.P.L.
19	”	− 5·0	− 0·1	− 0·03	+ 0 71	+ 0·02	+ 0·59	117, 120, and 39, 40 R.P.L.
21	”	− 4·5	− 0·1	− 0·24	+ 0·73	+ 0·03	+ 0·59	
22	”	− 4·7	− 0·1	− 0·22	+ 0·76	+ 0·02	+ 0·58	
23	”	− 4·9	− 0·1	− 0·25	+ 0·73	+ 0·02	+ 0·58	117 and 39, 40 R. P. L.
24	”	− 4·5	− 0·1	− 0·27	+ 0·75	+ 0·02	+ 0·59	
25	”	− 4·8	− 0·1	− 0·24	+ 0·73	+ 00.2	+ 0·61	
28	”	− 4 4	− 0·1	− 0·29	+ 0·77	+ 0·03	+ 0·65	120 and 39 R. P. L.
29	”	− 4·8	− 0·1	− 0·24	+ 0·72	+ 0·01	+ 0·64	
30	”	− 4·8	− 0·1	− 0·13	+ 0·73	+ 0·02	+ 0·62	
31	”	− 5·0	− 0·1	+ 0·01	+ 0·70	+ 0·02	+ 0·61	
June 1	”	− 4·9	+ 0·3	+ 0·04	+ 0·70	+ 0·01	+ 0·60	120 and 41 R. P. L.
2	”	− 5·7	+ 0·3	− 0·01	+ 0·73	+ 0·01	+ 0·59	
7	”	− 4·3	+ 0·3	− 0·20	+ 0·72	+ 0·03	+ 0·57	
8	M	− 4·5	+ 0·1	− 0·23	+ 0·74	+ 0·03	+ 0·60	
9	”	− 5·0	+ 0·1	− 0·27	+ 0·75	+ 0·03	+ 0·62	
11	”	− 4·0	+ 0·1	− 0·29	+ 0·74	+ 0·03	+ 0·67	
14	”	− 3·0	+ 0·1	− 0·19	+ 0·74	+ 0·03	+ 0·75	
15	”	− 4·2	+ 0·1	− 0·14	+ 0·74	+ 0·03	+ 0·77	ε Urs. Min. and 39 R.P.L.

May 1.—Transit clock put forward 1*m*.

Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′	Clock Rate.	Inclination.	Collimation.	Meridian	Determining Stars.
		″	″	s	s	s	s	
June 19	M	− 3·7	+ 0·1	− 0·06	+ 0·75	+ 0·03	+ 0·76	
20	,,	− 4·4	+ 0·1	− 0·07	+ 0·68	+ 0·05	+ 0·76	
22	,,	− 3·9	+ 0·1	− 0·11	+ 0·63	+ 0·03	+ 0·76	
26	,,	− 3·3	+ 0·1	− 0·15	+ 0·60	+ 0·03	+ 0·75	
July 3	R	− 4·0	+ 0·1	− 0·27	+ 0·59	+ 0·04	+ 0·74	
4	,,	− 3·1	+ 0·1	− 0·26	+ 0·60	+ 0·02	+ 0·73	
17	,,	− 2·6	+ 0·1	− 0·38	+ 0·55	+ 0·02	+ 0·71	
18	,,	− 1·6	+ 0·1	− 0·49	+ 0·56	+ 0·02	+ 0·71	
20	,,	− 1·9	+ 0·1	− 0·43	+ 0·55	+ 0·03	+ 0·70	
24	,,	− 2·0	+ 0·1	− 0·36	+ 0·54	+ 0·03	+ 0·70	
28	,,	− 0·7	+ 0·1	− 0·36	+ 0·51	+ 0·04	+ 0·69	143, and 53 R. P. L.
30	,,	+ 0·5	+ 0·1	− 0·38	+ 0·48	+ 0·02	+ 0·67	
31	,,	+ 0·5	+ 0·1	− 0·39	+ 0·47	+ 0·03	+ 0·66	
Aug. 2	,,	− 0·4	0·0	− 0·35	+ 0·50	+ 0·02	+ 0·63	
3	,,	− 0·2	0·0	− 0·32	+ 0·49	+ 0·02	+ 0·62	
4	,,	0·0	0·0	− 0·30	+ 0·46	+ 0·02	+ 0·61	133, 138, and 48 R. P. L.
8	,,	− 0·1	0·0	− 0·36	+ 0·49	+ 0·02	+ 0·65	133, 134, and 39, 41 R.P.L.
9	,,	− 3·6	0·0	− 0·37	+ 0·46	+ 0·01	+ 0·67	133, 134, and 39 R. P. L.
10	,,	− 3·7	0·0	− 0·31	+ 0·46	+ 0·03	+ 0·67	133, and 43 R. P. L.
11	,,	− 4·2	0·0	− 0·26	+ 0·46	+ 0·03	+ 0·67	118, 133, 134, & 41, 53 R.P.L.
13	,,	− 4·9	0·0	− 0·21	+ 0·49	+ 0·03	+ 0·68	118, 133, 134, & 41, 48, 53 R. P. L.
14	,,	− 5·0	0·0	− 0·23	+ 0·48	+ 0·03	+ 0·60	δ Urs. Min., 118, and 41, 48 R. P. L.
16	,,	− 4·8	0·0	− 0·30	+ 0·49	+ 0·03	+ 0·69	118, 133 and 41, 43 R. P. L.
18	,,	− 4·5	0·0	− 0·30	+ 0·48	+ 0·03	+ 0·67	118 and 41, 43 R. P. L.
25	,,	− 4·9	0·0	− 0·41	+ 0·43	+ 0·03	+ 0·70	120 and 43 R. P. L.
28	,,	− 4·6	0·0	− 0·41	+ 0·44	+ 0·03	+ 0·70	
Sep. 3	M	− 5·4	0·0	− 0·22	+ 0·44	+ 0·02	+ 0·70	
4	,,	− 4·7	0·0	− 0·28	+ 0·39	+ 0·02	+ 0·70	133, 138, 149 & 48 R. P. L.
5	,,	− 4·8	0·0	− 0·36	+ 0·44	+ 0·02	+ 0·71	
10	,,	− 6·4	0·0	− 0·36	+ 0·40	+ 0·02	+ 0·76	
11	,,	− 4·4	0·0	− 0·34	+ 0·41	+ 0·02	+ 0·77	
12	,,	− 4·6	0·0	− 0·31	+ 0·38	+ 0·02	+ 0·78	
13	,,	− 4·5	0·0	− 0·32	+ 0·38	+ 0·02	+ 0·79	
14	,,	− 4·8	0·0	− 0·25	+ 0·37	+ 0·02	+ 0·80	134, 138, 149 and 48, 55, 62 R. P. L.
15	,,	− 4·7	0·0	− 0·23	+ 0·37	+ 0·03	+ 0·82	138 and 62 R. P. L.
17	,,	− 5·3	0·0	− 0·24	+ 0·34	+ 0·02	+ 0·84	
19	,,	− 5·2	0·0	− 0·31	+ 0·34	+ 0·02	+ 0·87	
20	,,	− 3·1	0·0	− 0·34	+ 0·38	+ 0·03	+ 0·88	
21	,,	− 4·8	0·0	− 0·26	+ 0·35	+ 0·03	+ 0·89	
22	,,	− 4·4	0·0	− 0·20	+ 0·34	+ 0·03	+ 0·91	
24	,,	− 3·4	0·0	− 0·30	+ 0·34	+ 0·03	+ 0·93	
25	,,	− 4·1	0·0	− 0·25	+ 0·33	+ 0·03	+ 0·94	
26	,,	− 3·6	0·0	− 0·23	+ 0·32	+ 0·03	+ 0·96	
27	,,	− 3·4	0·0	− 0·30	+ 0·33	+ 0·03	+ 0·97	
28	,,	− 3·1	0·0	− 0·26	+ 0·32	+ 0·03	+ 0·98	134, 138 and 60 R. P. L.
29	,,	− 3·6	0·0	− 0·23	+ 0·31	+ 0·03	+ 0·96	
Oct. 1	R	− 2·9	0·0	− 0·29	+ 0·29	+ 0·04	+ 0·92	
3	,,	− 4·7	0·0	− 0·30	+ 0·28	+ 0·04	+ 0·88	
4	,,	− 4·4	0·0	− 0·32	+ 0·25	+ 0·04	+ 0·86	
5	,,	− 2·9	0·0	− 0·34	+ 0·29	+ 0·05	+ 0·84	
6	,,	− 1·6	0·0	− 0·35	+ 0·23	+ 0·03	+ 0·82	
8	,,	− 0·2	0·0	− 0·05	+ 0·22	+ 0·06	+ 0·77	

Oct. 6.—Line of transit clock broken : clock stopped and restarted.

Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Oct. 9	R	− 0·9	0·0	+ 0·23	+ 0·22	+ 0·05	+ 0·75	
10	”	− 0·1	0·0	+ 0·22	+ 0·25	+ 0·05	+ 0·73	
11	”	− 0·8	0·0	+ 0·63	+ 0·25	+ 0·06	+ 0·71	
13	”	+ 0·7	0·0	+ 0·69	+ 0·26	+ 0·04	+ 0·67	
17	”	+ 4·8	0·0	+ 0·89	− 0·04	+ 0·04	+ 0·59	
18	”	+ 4·8	0·0	+ 0·96	+ 0·03	+ 0·03	+ 0·57	158 and 55 R. P. L.
19	”	+ 5·7	0·0	+ 0·98	+ 0·10	+ 0·04	+ 0·56	158 and 82 R. P. L.
20	M	+ 5·3	0·0	+ 0·92	+ 0·12	+ 0·03	+ 0·56	
22	R	+ 4·8	0·0	+ 0·65	+ 0·17	+ 0·04	+ 0·56	158 and 55 R. P. L.
23	”	+ 4·8	0·0	+ 0·56	+ 0·22	+ 0·03	+ 0·58	158 and 82 R. P. L.
24	”	+ 4·2	0·0	+ 0·58	+ 0·28	+ 0·02	+ 0·59	158 and 53 R. P. L.
25	”	+ 5·1	0·0	+ 0·61	+ 0·29	+ 0·01	+ 0·60	158 and 53, 82 R. P. L.
Nov. 5	M	+ 6·0	0·0	+ 0·63	+ 0·42	+ 0·03	+ 0·55	
6	R	+ 5·4	0·0	+ 0·62	+ 0·43	+ 0·03	+ 0·54	
7	M	+ 5·6	0·0	+ 0·53	+ 0·43	+ 0·03	+ 0·54	
9	”	+ 3·8	0·0	+ 0·53	+ 0·40	+ 0·03	+ 0·53	158 and 82, 98 R. P. L.
10	”	+ 4·9	0·0	+ 0·52	+ 0·38	+ 0·03	+ 0·53	
12	”	+ 3·8	0·0	+ 0·41	+ 0·37	+ 0·03	+ 0·54	10, 158 and 82, 97, 101 R. P. L.
13	”	+ 3·3	0·0	+ 0·32	+ 0·37	+ 0·03	+ 0·60	10, 158 and 87, 100 R.P.L
14	”	+ 2·4	0·0	+ 0·29	+ 0·35	+ 0·03	+ 0·65	158 and 87 R. P. L.
15	”	+ 1·9	0·0	+ 0·34	+ 0·34	+ 0·02	+ 0·64	
16	”	+ 2·2	0·0	+ 0·36	+ 0·35	+ 0·03	+ 0·64	
20	”	+ 1·3	0·0	+ 0·33	+ 0·33	+ 0·03	+ 0·62	
21	”	+ 2·3	0·0	+ 0·45	+ 0·34	+ 0·03	+ 0·61	α Pegasi and 87 R. P. L.
23	”	+ 3·1	0·0	+ 0·41	+ 0·34	+ 0·03	+ 0·60	
26	”	+ 2·1	0·0	+ 0·50	+ 0·32	+ 0·03	+ 0·60	
27	”	+ 0·6	0·0	+ 0·39	+ 0·32	+ 0·02	+ 0·59	
29	”	− 1·2	0·0	+ 0·28	+ 0·33	+ 0·03	+ 0·59	
30	”	+ 0·8	0·0	+ 0·36	+ 0·33	+ 0·03	+ 0·59	
Dec. 4	R	− 0·6	0·0	+ 0·33	+ 0·36	+ 0·04	+ 0·58	
5	”	− 0·6	0·0	+ 0·30	+ 0·36	+ 0·04	+ 0·57	
6	”	− 0·6	0·0	+ 0·28	+ 0·36	+ 0·04	+ 0·57	158 and 87, 97 R. P. L.
7	”	− 2·0	0·0	+ 0·33	+ 0·35	+ 0·04	+ 0·61	
8	”	− 2·7	0·0	+ 0·35	+ 0·33	+ 0·03	+ 0·60	33 and 97 R. P. L.
11	”	− 1·4	0·0	+ 0·40	+ 0·35	+ 0·02	+ 0·57	
17	”	+ 3·3	0·0	+ 0·41	+ 0·72	+ 0·05	+ 0·50	
18	”	+ 3·9	0·0	+ 0·39	+ 0·74	+ 0·05	+ 0·49	
19	”	+ 4·4	0·0	+ 0·39	+ 0·75	+ 0·03	+ 0·48	
20	”	+ 4·1	0·0	+ 0·44	+ 0·78	+ 0·04	+ 0·47	33 and 99, 100 R. P. L.
22	”	+ 4·0	0·0	+ 0·49	+ 0·59	+ 0·04	+ 0·44	33 and 99 R. P. L.
25	”	+ 3·4	0·0	+ 0·50	+ 0·57	+ 0·04	+ 0·45	
26	”	+ 3·1	0·0	+ 0·56	+ 0·52	+ 0·04	+ 0·45	
27	”	+ 3·3	0·0	+ 0·53	+ 0·49	+ 0·05	+ 0·45	
28	”	+ 3·2	0·0	+ 0·41	+ 0·45	+ 0·04	+ 0·45	18, 34 and 100, 108 R.P.L.
29	”	+ 3·2	0·0	+ 0·38	+ 0·43	+ 0·04	+ 0·47	14, 26, 34 and 98 R. P. L.
31	M	+ 1·8	0·0	+ 0·38	+ 0·44	+ 0·03	+ 0·47	

Oct. 11.—New line put in clock.

Instrumental Corrections adopted in 1884.

Date.	Obser-ver.	Index.	Run in 5′.	Clock Rate.	Inclina-tion.	Collima-tion.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 1	M	+ 1·6	0·0	+0·34	+0·45	+0·04	+0·38	β Ceti & 2 Ursæ Minoris.
2	”	+ 0·8	0·0	+0·37	+0·47	+0·04	+0·38	
3	”	+ 0·9	0·0	+0·42	+0·46	+0·03	+0·38	
5	”	+ 0·7	0·0	+0·42	+0·47	+0·03	+0·38	
7	”	+ 0·7	0·0	+0·37	+0·50	+0·03	+0·38	
8	”	+ 0·2	0·0	+0·37	+0·47	+0·03	+0·38	111, 116 R. P .L., & Polaris.
9	”	+ 0·2	0·0	+0·40	+0·46	+0·03	+0·34	111 R. P. L. & Polaris, 35, 40, R. P. L.
10	”	− 0·2	0·0	+0·40	+0·44	+0·04	+0·33	
21	”	− 1·4	0·0	+0·43	+0·50	+0·03	+0·27	δ Urs. Min. & 35, 40, 43 R. P. L., 51 Cephei.
22	”	− 2·0	0·0	+0·33	+0·51	+0·04	+0·36	δ Urs. Min. & 35, 40 R.P.L.
23	”	− 2·1	0·0	+0·33	+0·51	+0·04	+0·36	δ Urs. Min. & 41 R. P. L., 51 Cephei.
24	”	− 2·0	0·0	+0·31	+0·50	+0·03	+0·33	δ Urs. Min. and 51 Cephei.
28	”	− 1·9	0·0	+0·37	+0·50	+0·03	+0·32	δ Urs. Min. & 51 Cephei.
30	”	− 2·3	0·0	+0·45	+0·46	+0·04	+0·29	δ Urs. Min. and 49 R. P. L.
31	”	− 3·2	0·0	+0·47	+0·44	+0·03	+0·30	δ Urs. Min., 24 Urs. Min. & 49 R. P. L.
Feb. 2	R	− 3·3	0·0	+0·35	+0·45	+0·04	+0·26	δ Urs. Min., 24 Urs. Min. & 60 R. P. L
5	”	− 3·5	0·0	+0·36	+0·43	+0·04	+0·36	δ Urs. Min. & 60 R. P. L.
7	”	− 5·3	0·0	+0·42	+0·41	+0·02	+0·23	24 Urs. Min. & 70 R.P.L.
9	”	− 5·3	0·0	+0·41	+0·48	+0·02	+0·26	λ Urs. Min. & 70 R.P.L.
13	”	− 5·9	0·0	+0·42	+0·49	+0·04	+0·29	λ Urs. Min. & 70 R. P. L.
16	”	− 5·9	0·0	+0·39	+0·59	+0·03	+0·28	λ Urs. Min. & 70 R. P. L.
19	”	− 6·9	0·0	+0·32	+0·56	+0·04	+0·24	
22	”	− 7·0	0·0	+0·33	+0·52	+0·02	+0·21	
26	”	− 7·0	0·0	+0·37	+0·56	+0·04	+0·17	ζ Argus & 70 R. P. L.
29	”	− 7·7	0·0	+0·43	+0·50	+0·02	+0·15	
Apl. 16	”	− 7·0	0·0	+0·40	+0·75	+0·04	+0·34	153 and 70, 89 R. P. L.
17	”	− 7·6	0·0	+0·34	+0·76	+0·04	+0·24	14 & 72, 89, 92, 99 R. P. L.
18	”	− 7·4	0·0	+0·40	+0·75	+0·03	+0·24	155 & 72, 89, 99 R.P.L.
19	”	− 7·4	0·0	+0·38	+0·76	+0·04	+0·27	155 & 89 R. P. L.
21	”	− 8·4	0·0	+0·39	+0·78	+0·03	+0·23	155 & 72 R. P. L.
22	”	− 7·5	0·0	+0·43	+0·73	+0·02	+0·19	Polaris & 72, 93 R. P. L.
23	”	− 8·5	0·0	+0·43	+0·72	+0·02	+0·22	
24	”	− 8·9	0·0	+0·49	+0·72	+0·02	+0·24	10 R. P. L., Polaris & 93 R. P. L.
25	”	− 8·4	0·0	+0·50	+0·74	+0·04	+0·24	Polaris & 97 R. P. L.
26	”	− 8·5	0·0	+0·45	+0·73	+0·01	+0·23	
28	”	− 7·1	0·0	+0·51	+0·75	+0·04	+0·20	158 & 103 R. P. L.
29	”	− 7·8	0·0	+0·51	+0·74	+0·02	+0·20	
30	”	− 7·5	0·0	+0·54	+0·73	+0·03	+0·21	
May 1	M	− 7·0	0·0	+0·58	+0·75	+0·04	+0·21	
2	”	− 6·3	0·0	+0·56	+0·75	+0·03	+0·21	
June 20	M	− 7·0	0·0	+0·68	+0·79	+0·03	+0·87	34 & 115 R. P. L.
21	”	− 5·7	0·0	+0·61	+0·78	+0·04	+0·46	33, 43 & 108, 120 R. P. L.
23	R	− 5·6	0·0	+0·57	+0·77	+0·04	+0·42	
24	”	− 5·7	0·0	+0·46	+0·79	+0·03	+0·41	34 & 111, 116 R. P. L.
25	”	− 5·2	0·0	+0·42	+0·82	+0·03	+0·42	
26	”	− 6·9	0·0	+0·54	+0·79	+0·02	+0·44	
28	”	− 5·6	0·0	+0·55	+0·80	+0·03	+0·35	34 & 108, 111 R. P. L.
July 14	M	− 4·9	0·0	−0·34	+0·78	+0·03	+0·48	37 & 111, 114, 118 R.P.L.
17	”	− 5·1	0·0	−0·17	+0·79	+0·03	+0·42	34 & 111, 114 R. P. L.
18	”	− 5·5	0·0	−0·17	+0·81	+0·04	+0·52	43 & 111, 120 R. P. L.

Instrumental Corrections adopted in 1884.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
July 19	"	− 5·1	0·0	− 0·21	+ 0·80	+ 0·03	+ 0·52	
22	"	− 5·2	0·0	− 0·20	+ 0·80	+ 0·04	+ 0·53	
23	"	− 5·5	0·0	− 0·17	+ 0·80	+ 0·03	+ 0·54	
24	"	− 5·3	0·0	− 0·15	+ 0·78	+ 0·03	+ 0·54	
25	"	− 4·9	0·0	− 0·09	+ 0·77	+ 0·04	+ 0·54	
26	"	− 6·1	0·0	− 0·06	+ 0·77	+ 0·04	+ 0·55	
Aug. 2	R	− 4·6	0·0	− 0·08	+ 0·72	+ 0·04	+ 0·57	
4	"	− 5·0	0·0	− 0·11	+ 0·74	+ 0·04	+ 0·58	
5	"	− 4·4	0·0	− 0·15	+ 0·75	+ 0·04	+ 0·58	λ Sagittarii & 24 Urs. Min
7	"	− 4·9	0·0	− 0·21	+ 0·75	+ 0·02	+ 0·65	51 Cephei & 143 R. P. L.
8	"	− 4·6	0·0	− 0·22	+ 0·76	+ 0·03	+ 0·66	
11	"	− 4·6	0·0	− 0·18	+ 0·75	+ 0·02	+ 0·65	
12	"	− 5·0	0·0	− 0·20	+ 0·75	+ 0·03	+ 0·68	
13	"	− 4·2	0·0	− 0·13	+ 0·75	+ 0·04	+ 0·69	51 Cephei 131 R. P. L.
14	"	− 4·7	0·0	− 0·17	+ 0·72	+ 0·02	+ 0·68	
15	"	− 5·1	0·0	− 0·10	+ 0·71	+ 0·04	+ 0·67	
16	"	− 3·9	0·0	0·00	+ 0·73	+ 0·04	+ 0·67	
18	"	− 4·5	0·0	− 0·22	+ 0·73	+ 0·03	+ 0·65	49 R.P.L. & 24 Urs. Min.
19	"	− 4·6	0·0	− 0·25	+ 0·75	+ 0·02	+ 0·61	51 Cephei & 24 Urs. Min.
20	"	− 4·5	0·0	− 0·33	+ 0·74	+ 0·03	+ 0·68	51 Cephei & 24 Urs Min., 143 R. P. L.
21	"	− 4·4	0·0	− 0·30	+ 0·74	+ 0·03	+ 0·69	θ Capricorni & 24 Urs. Min.
23	"	− 4·3	0·0	− 0·30	+ 0·75	+ 0·04	+ 0·68	
25	"	− 3·0	0·0	− 0·29	+ 0·75	+ 0·03	+ 0·69	
26	"	− 4·3	0·0	− 0·29	+ 0·73	+ 0·03	+ 0·70	
28	"	− 3·1	0·0	− 0·34	+ 0·75	+ 0·02	+ 0·71	
Sep. 1	"	− 4·7	− 0·1	− 0·35	+ 0·73	+ 0·04	+ 0·72	
8	"	− 4·1	− 0·1	− 0·34	+ 0·68	+ 0·03	+ 0·76	
10	"	− 4·1	− 0·1	− 0·32	+ 0·66	+ 0·03	+ 0·78	48, 53, 60 & 131, 143 R.P.L.
11	"	− 3·9	− 0·1	− 0·30	+ 0·64	+ 0·03	+ 0·76	48 & 24 Urs. Min., 131 R. P. L.
13	"	− 3·4	− 0·1	− 0·34	+ 0·63	+ 0·03	+ 0·70	45 R. P. L. & 24 Urs. Min., 131 R. P. L.
16	M	− 4·4	− 0·1	− 0·37	+ 0·60	+ 0·03	+ 0·65	45 R. P. L. & 24 Urs. Min., 131 R. P. L.
24	M	− 1·0	− 0·1	− 0·39	+ 0·55	+ 0·03	+ 0·63	48, 53, 60, 70, 72 R. P.L. & 24 Ursæ Minoris, 131 R. P. L.
25	"	− 1·1	− 0·1	− 0·34	+ 0·55	+ 0·03	+ 0·69	β Aquarii & λ Urs. Minoris.
26	"	− 1·3	− 0·1	− 0·36	+ 0·55	+ 0·03	+ 0·67	
Oct. 1	"	− 1·3	− 0·1	− 0·41	+ 0·53	+ 0·04	+ 0·58	62, 69, 72; 79 & 150 R.P.L.
2	"	− 0·9	− 0·1	− 0·38	+ 0·52	+ 0·03	+ 0·55	55, 79, & 151 R. P. L.
3	"	− 1·2	− 0·1	− 0·37	+ 0·52	+ 0·04	+ 0·58	45, 55, 60 & 62 R. P. L., 24 Cephei 151 R. P. L.
4	"	− 1·7	− 0·1	− 0·34	+ 0·52	+ 0·03	+ 0·57	48, 62, 79 & 153 R. P. L.
6	"	− 1·4	− 0·1	− 0·54	+ 0·51	+ 0·03	+ 0·59	45, 69, 79 & 153 R. P. L.
7	"	− 1·2	− 0·1	− 0·54	+ 0·52	+ 0·04	+ 0·63	45 & 153 R.P.L.
8	"	− 2·5	− 0·1	− 0·46	+ 0·50	+ 0·03	+ 0·57	45, 62, 79 & 153 R. P. L.
9	"	− 2·3	− 0·1	− 0·45	+ 0·52	+ 0·04	+ 0·60	45, 79 & 153 R. P. L.
10	"	− 2·0	− 0·1	− 0·43	+ 0·50	+ 0·03	+ 0·59	45, 79 & 153 R. P. L.
11	"	− 2·4	− 0·1	− 0·43	+ 0·49	+ 0·03	+ 0·58	49 R. P. L. & λ Urs. Min.
13	"	− 2·1	− 0·1	− 0·47	+ 0·49	+ 0·04	+ 0·62	49 R. P. L. & λ Urs. Min.
21	"	+ 5·7	− 0·1	− 0·52	+ 0·15	+ 0·03	+ 0·50	
22	"	+ 6·4	− 0·1	− 0·51	+ 0·18	+ 0·03	+ 0·48	ε Aquarii & 153 R. P. L.
27	"	+ 7·8	− 0·1	− 0·69	+ 0·26	+ 0·03	+ 0·50	

Instrumental Corrections adopted in 1884.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
28	,,	+ 7·3	− 0·1	− 0·72	+ 0·27	+ 0·04	+ 0·50	87, 92, 97 & 10 R.P.L.
Nov. 12	R	+ 6·2	+ 0·1	− 0·89	+ 1·01	+ 0·03	+ 0·53	
14	,,	+ 7·6	+ 0·1	− 1·01	+ 1·10	+ 0·03	+ 0·54	
15	,,	+ 7·6	+ 0·1	− 0·96	+ 1·03	+ 0·02	+ 0·54	
17	,,	+ 7·7	+ 0·1	− 0·94	+ 0·97	+ 0·04	+ 0·55	
18	,,	+ 8·3	+ 0·1	− 1·03	+ 0·98	+ 0·03	+ 0·55	93, 10, & 18 R. P. L.
22	,,	+ 7·6	+ 0·1	− 0·98	+ 0·94	+ 0·03	+ 0·55	
26	,,	+ 8·4	+ 0·1	− 0·92	+ 0·93	+ 0·02	+ 0·55	87,92 & 10 R.P.L., Polaris.
29	,,	+ 9·1	+ 0·1	− 0·93	+ 0·95	+ 0·03	+ 0·52	87, 103 R. P. L. & 2993 Radcliffe & 10 R. P. L.
Dec. 1	,,	+ 8·3	0·0	− 1·04	+ 0·94	+ 0·05	+ 0·57	87, 103 R. P. L. & 2 Ursæ Minoris.
3	M	+ 8·4	0·0	− 1·07	+ 0·91	+ 0·04	+ 0·50	100, 103 & 10 R. P. L.
4	,,	+ 8·5	0·0	− 1·04	+ 0·89	+ 0·04	+ 0·49	100, 103 & 10 R. P. L.
11	,,	+ 6·8	0·0	− 0·99	+ 0·78	+ 0·04	+ 0·43	100, 103 & 10 R. P. L.
12	,,	+ 6·3	0·0	− 1·10	+ 0·76	+ 0·04	+ 0·46	100, & 10 R. P. L.
23	R	+ 12·6	0·0	− 1·03	+ 1·17	+ 0·03	+ 0·47	100, & 10 R. P. L.
24	,,	+ 13·9	0·0	− 1·02	+ 1·32	+ 0·03	+ 0·52	
26	,,	+ 13·3	0·0	− 0·97	+ 1·32	+ 0·02	+ 0·54	101 & 10 R. P. L.
27	,,	+ 13·6	0·0	− 0·99	+ 1·32	+ 0·02	+ 0·55	101 & 10 R. P. L.
29	M	+ 13·8	0·0	− 1·00	+ 1·35	+ 0·03	+ 0·45	103 & 10 R. P. L.
30	,,	+ 12·0	0·0	− 0·89	+ 1·34	+ 0·04	+ 0·56	
31	,,	+ 11·8	0·0	− 0·80	+ 1·33	+ 0·04	+ 0·45	103 & 10 R. P. L.

Instrumental Corrections adopted in 1885.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 1	M	+ 10·6	− 0·5	+ 0·22	+ 1·32	+ 0·03	+ 0·42	10 and 110 R. P. L.
2	"	+ 12·0	− 0·5	+ 0·24	+ 1·31	+ 0·03	+ 0·41	
5	R	+ 11·0	− 0·5	+ 0·20	+ 1·16	+ 0·02	+ 0·39	
8	"	+ 9·9	− 0·5	+ 0·01	+ 1·06	+ 0·03	+ 0·36	37 and 110 R. P. L.
10	"	+ 9·1	− 0·5	− 0·02	+ 1·02	+ 0·03	+ 0·35	
14	"	+ 8·4	− 0·5	+ 0·09	+ 0·90	+ 0·04	+ 0·34	37 and 110 R. P. L.
17	"	+ 6·8	− 0·5	+ 0·12	+ 0·87	+ 0·05	+ 0·35	37 and 110 R. P. L.
20	"	+ 6·0	− 0·5	+ 0·15	+ 0·84	+ 0·02	+ 0·30	37 and 110 R. P. L.
23	"	+ 5·8	− 0·5	+ 0·13	+ 0·81	+ 0·03	+ 0·26	37 R. P. L. and μ Eridani.
26	"	+ 4·2	− 0·5	+ 0·14	+ 0·74	+ 0·03	+ 0·32	37 R. P. L. and δ Urs. Min.
29	"	+ 3·7	− 0·5	+ 0·17	+ 0·78	+ 0·04	+ 0·32	37 R. P. L. and δ Urs. Min.
31	"	+ 4·2	− 0·5	+ 0·15	+ 0·77	+ 0·02	+ 0·30	
Feb. 3	M	+ 1·3	+ 0·3	+ 0·11	+ 0·82	+ 0·03	+ 0·26	
6	"	+ 0·5	+ 0·3	+ 0·15	+ 0·80	+ 0·03	+ 0·23	37 R. P. L. and δ Urs. Min.
9	"	− 0·8	+ 0·3	+ 0·12	+ 0·80	+ 0·03	+ 0·20	
10	"	− 1·3	+ 0·3	+ 0·14	+ 0·78	+ 0·02	+ 0·19	37 R. P. L. and δ Urs. Min.
11	"	− 1·2	+ 0·3	+ 0·20	+ 0·80	+ 0·03	+ 0·20	
12	"	− 0·6	+ 0·3	+ 0·12	+ 0·81	+ 0·02	+ 0·22	
13	"	− 0·9	+ 0·3	+ 0·12	+ 0·82	+ 0·03	+ 0·23	
14	"	− 1·9	+ 0·3	+ 0·18	+ 0·83	+ 0·02	+ 0·24	37 R. P. L. and δ Urs. Min.
16	"	− 2·0	+ 0·3	+ 0·17	+ 0·80	+ 0·02	+ 0·23	
17	"	− 1·8	+ 0·3	+ 0·19	+ 0·81	+ 0·02	+ 0·22	
18	R	− 1·4	+ 0·3	+ 0·07	+ 0·80	+ 0·03	+ 0·21	
19	M	− 2·1	+ 0·3	+ 0·07	+ 0·82	+ 0·02	+ 0·20	
20	"	− 1·9	+ 0·3	+ 0·18	+ 0·86	+ 0·02	+ 0·20	37 R. P. L. and δ Urs. Min.
23	"	− 2·9	+ 0·3	+ 0·16	+ 0·87	+ 0·03	+ 0·18	
26	"	− 3·0	+ 0·3	+ 0·14	+ 0·84	+ 0·02	+ 0·17	51 Oephei & δ Urs. Min.
28	"	− 3·0	+ 0·3	+ 0·19	+ 0·83	+ 0·02	+ 0·19	
Mar. 3	R	− 3·2	+ 0·1	+ 0·18	+ 0·81	+ 0·04	+ 0·21	51 Cephei & δ Urs. Min.
6	"	− 2·0	+ 0·1	+ 0·13	+ 0·89	+ 0·04	+ 0·24	51 Cephei & δ Urs. Min.
9	"	− 3·3	+ 0·1	+ 0·14	+ 0·83	+ 0·03	+ 0·22	
12	"	− 3·6	+ 0·1	+ 0·15	+ 0·85	+ 0·03	+ 0·20	51 Cephei & δ Urs. Min.
14	"	− 4·0	+ 0·1	+ 0·16	+ 0·84	+ 0·03	+ 0·20	
17	M	− 4·6	+ 0·1	+ 0·12	+ 0·88	+ 0·03	+ 0·19	
20	"	− 4·3	+ 0·1	+ 0·12	+ 0·89	+ 0·03	+ 0·19	51 Cephei & λ Urs. Min.
23	R	− 3·5	+ 0·1	+ 0·17	+ 0·85	+ 0·03	+ 0·19	51 Cephei & λ Urs. Min.
26	"	− 3·3	+ 0·1	+ 0·20	+ 0·87	+ 0·02	+ 0·18	51 Cephei & λ Urs. Min.
28	"	− 3·3	+ 0·1	+ 0·18	+ 0·86	+ 0·02	+ 0·19	51 Cephei & λ Urs. Min.
30	"	− 3·8	+ 0·1	+ 0·13	+ 0·88	+ 0·03	+ 0·21	51 Cephei & λ Urs. Min.
Apl. 1	"	− 3·4	+ 0·3	+ 0·10	+ 0·88	+ 0·03	+ 0·20	51 Cephei & λ Urs. Min.
3	"	− 3·1	+ 0·3	+ 0·06	+ 0·88	+ 0·02	+ 0·19	
8	M	− 3·7	+ 0·3	+ 0·07	+ 0·91	+ 0·02	+ 0·17	
11	"	− 3·6	+ 0·3	+ 0·08	+ 0·96	+ 0·03	+ 0·16	
14	"	− 3·4	+ 0·3	+ 0·08	+ 0·97	+ 0·02	+ 0·15	72 and 155 R. P. L.
17	"	− 3·4	+ 0·3	+ 0·08	+ 0·96	+ 0·02	+ 0·12	72 and 155 R. P. L.
Apl. 21	M	− 3·8	+ 0·3	+ 0·09	+ 0·96	+ 0·02	+ 0·14	72 and 155 R. P. L.
24	"	− 3·5	+ 0·3	+ 0·10	+ 0·96	+ 0·03	+ 0·13	72 and 155 R. P. L.
28	"	− 3·3	+ 0·3	+ 0·13	+ 0·97	+ 0·02	+ 0·11	72 and 155 R. P. L.
May 1	R	− 3·1	− 0·1	+ 0·11	+ 0·98	+ 0·03	+ 0·13	72 and 155 R. P. L.
5	"	− 3·5	− 0·1	+ 0·08	+ 1·02	+ 0·03	+ 0·16	
7	"	− 3·0	− 0·1	+ 0·08	+ 1·03	+ 0·02	+ 0·18	
9	"	− 3·2	− 0·1	+ 0·10	+ 1·03	+ 0·03	+ 0·19	72 and 155 R. P. L.
11	"	− 3·5	− 0·1	+ 0·08	+ 1·05	+ 0·02	+ 0·22	
13	"	− 2·9	− 0·1	+ 0·07	+ 1·12	+ 0·04	+ 0·25	72 and 155 R. P. L.

Instrumental Corrections adopted in 1885.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars
		″	″	s	s	s	s	
May 15	R	− 2·8	− 0·1	+ 0·07	+ 1·11	+ 0·03	+ 0·25	
18	,,	− 3·0	− 0·1	+ 0·04	+ 1·13	+ 0·03	+ 0·25	
20	,,	− 3·1	− 0·1	+ 0·02	+ 1·12	+ 0·02	+ 0·25	
22	,,	− 2·8	− 0·1	+ 0·03	+ 1·12	+ 0·03	+ 0·25	92 and 155 R. P. L.
25	,,	− 3·4	− 0·1	+ 0·04	+ 1·10	+ 0·03	+ 0·24	92 and 155 R. P. L.
28	,,	− 2·4	− 0·1	0·00	+ 1·12	+ 0·03	+ 0·23	
30	,,	− 3·2	− 0·1	− 0·01	+ 1·11	+ 0·01	+ 0·23	
June 2	M	− 1·3	+ 0·2	− 0·05	+ 1·16	+ 0·03	+ 0·22	
5	,,	− 2·7	+ 0·2	− 0·08	+ 1·11	+ 0·02	+ 0·21	
Aug. 5	R	− 2·8	0·0	+ 0·13	+ 1·11	+ 0·04	+ 0·46	
7	,,	− 3·2	0·0	+ 0·12	+ 1·17	+ 0·02	+ 0·47	51 Cephei & 72 Ophiuchi.
15	,,	− 2·2	0·0	+ 0·11	+ 1·15	+ 0·06	+ 0·50	
17	,,	− 3·5	0·0	+ 0·04	+ 1·11	+ 0·02	+ 0·51	51 Cephei & δ Urs. Min.
20	,,	− 2·4	0·0	− 0·02	+ 1·08	+ 0·02	+ 0·51	
Sep. 7	,,	− 2·1	+ 0·2	+ 0·18	+ 1·04	+ 0·03	+ 0·53	51 Cephei & δ Urs. Min.
12	,,	− 2·8	+ 0·2	+ 0·15	+ 1·06	+ 0·02	+ 0·54	
15	,,	− 2·4	+ 0·2	+ 0·07	+ 1·00	+ 0·02	+ 0·54	
18	,,	− 2·1	+ 0·2	− 0·01	+ 0·95	+ 0·03	+ 0·55	
25	,,	+ 0·5	+ 0·2	− 0·11	+ 0·92	+ 0·02	+ 0·55	72 R. P. L. & λ Urs. Min.
29	,,	− 0·3	+ 0·2	− 0·21	+ 0·95	+ 0·02	+ 0·57	
Oct. 1	M	+ 0·9	0·0	− 0·22	+ 0·98	+ 0·03	+ 0·57	
3	,,	+ 1·6	0·0	− 0·17	+ 0·95	+ 0·03	+ 0·57	
5	,,	+ 0·7	0·0	− 0·13	+ 0·94	+ 0·03	+ 0·58	
7	,,	+ 0·3	0·0	− 0·13	+ 0·93	+ 0·03	+ 0·58	72 and 155 R. P. L.
9	,,	+ 2·6	0·0	− 0·37	+ 0·90	+ 0·02	+ 0·55	
14	,,	+ 2·9	0·0	− 0·48	+ 0·86	+ 0·03	+ 0·47	72 R. P. L. and λ Aquarii.
16	,,	+ 3·1	0·0	− 0·39	+ 0·86	+ 0·03	+ 0·55	
19	,,	+ 1·9	0·0	− 0·37	+ 0·89	+ 0·03	+ 0·55	
21	,,	+ 2·3	0·0	− 0·37	+ 0·88	+ 0·03	+ 0·55	
28	,,	+ 2·8	0·0	− 0·35	+ 0·89	+ 0·03	+ 0·55	
Dec. 28	R	+ 7·0	0·0	− 1·33	+ 0·89	+ 0·03	+ 0·52	

Instrumental Corrections adopted in 1886.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 1	M	+ 5·5	0·0	− 1·30	+ 0·85	+ 0·03	+ 0·49	37 and 110 R. P. L.
7	R	+ 4·6	0·0	− 1·29	+ 0·92	+ 0·08	+ 0·43	
15	”	+ 3·6	0·0	− 1·43	+ 0·84	+ 0·04	+ 0·36	51 Cephei & δ Urs. Min.
19	”	+ 1·9	0·0	− 1·38	+ 0·84	+ 0·04	+ 0·36	
24	”	− 0·2	0·0	− 0·20	− 0·03	+ 0·06	+ 0·35	51 Cephei & δ Urs. Min.
26	”	− 0·2	0·0	+ 0·19	− 0·04	+ 0·28	+ 0·25	
27	”	− 0·2	0·0	+ 0·28	− 0·05	+ 0·40	+ 0·39	
29	”	− 0·2	0·0	+ 0·68	− 0·06	+ 0·62	+ 0·51	37 and 40 R. P. L. 51 Cephei & δ Urs. Min.
30	”	− 0·8	0·0	+ 0·65	+ 0·07	+ 0·02	+ 0·49	37 and 40 R. P. L. 51 Cephei & δ Urs. Min.
Feb. 1	”	− 2·4	− 0·3	+ 0·65	+ 0·11	+ 0·03	+ 0·64	37 and 40 R. P. L., λ Ursæ Minoris.
3	”	+ 0·1	− 0·3	+ 0·70	+ 0·09	+ 0·04	+ 0·69	
6	”	− 2·2	− 0·3	+ 0·70	+ 0·07	+ 0·08	+ 0·76	
13	M	− 7·1	− 0·3	+ 0·85	+ 0·05	+ 0·10	+ 0·53	51 Cephei & λ Urs. Min.
15	”	− 7·7	− 0·3	+ 0·76	+ 0·02	+ 0·07	+ 0·52	51 Cephei & λ Urs. Min.
17	”	− 7·3	− 0·3	+ 0·76	+ 0·08	+ 0·07	+ 0·54	51 Cephei & λ Urs. Min.
20	”	− 7·5	− 0·3	+ 0·84	+ 0·03	+ 0·06	+ 0·53	
22	”	− 7·5	− 0·3	+ 0·89	+ 0·05	+ 0·04	+ 0·49	51 Cephei & λ Urs. Min.
25	”	− 7·4	− 0·3	+ 0·93	+ 0·06	+ 0·05	+ 0·49	
Apl. 2	R	− 7·5	0·0	+ 0·91	+ 0·28	+ 0·07	+ 0·53	72 and 155 R. P. L.
5	”	− 6·4	0·0	+ 0·84	+ 0·30	+ 0·06	+ 0·47	
7	”	− 6·6	0·0	+ 0·91	+ 0·26	+ 0·07	+ 0·43	
9	”	− 7·4	0·0	+ 0·90	+ 0·22	+ 0·05	+ 0·39	72 and 155 R. P. L.
12	”	− 7·0	0·0	+ 0·85	+ 0·23	+ 0·06	+ 0·40	
14	”	− 6·8	0·0	+ 0·86	+ 0·23	+ 0·06	+ 0·41	
16	”	− 7·1	0·0	+ 0·81	+ 0·24	+ 0·05	+ 0·41	
19	”	− 7·2	0·0	+ 0·83	+ 0·28	+ 0·06	+ 0·42	92 and 155 R. P. L.
21	”	− 6·2	0·0	+ 0·81	+ 0·31	+ 0·13	+ 0·42	
24	”	− 6·5	0·0	+ 0·81	+ 0·33	+ 0·18	+ 0·42	
27	”	− 6·6	0·0	+ 0·91	+ 0·33	+ 0·10	+ 0·41	
29	”	− 6·2	0·0	+ 0·95	+ 0·27	+ 0·08	+ 0·41	92 and 155 R. P. L.
May 1	”	− 6·9	0·0	+ 0·92	+ 0·26	+ 0·07	+ 0·42	
4	”	− 7·2	0·0	+ 0·91	+ 0·28	+ 0·07	+ 0·44	
6	”	− 6·1	0·0	+ 0·91	+ 0·29	+ 0·07	+ 0·45	
8	”	− 6·8	0·0	+ 0·92	+ 0·34	+ 0·05	+ 0·46	
10	”	− 5·9	0·0	+ 1·00	+ 0·36	+ 0·04	+ 0·47	92 and 155 R. P. L.
June 7	M	− 0·2	− 0·1	+ 0·75	+ 0·23	+ 0·04	+ 0·49	
11	”	+ 0·8	− 0·1	+ 0·72	+ 0·16	+ 0·05	+ 0·49	Polaris and 92 R. P. L.
18	”	+ 2·0	− 0·1	+ 0·75	+ 0·18	+ 0·07	+ 0·47	
22	”	+ 0·3	− 0·1	+ 0·88	+ 0·14	+ 0·07	+ 0·43	Polaris and ρ Bootis.
25	”	+ 1·3	− 0·1	+ 0·92	+ 0·12	+ 0·07	+ 0·43	
Aug. 4	R	+ 6·6	0·0	+ 0·71	+ 0·06	+ 0·07	+ 0·50	51 Cephei & δ Urs. Min.
Sep. 1	M	− 0·1	0·0	+ 0·47	+ 0·13	+ 0·12	+ 0·46	
4	”	− 1·0	0·0	+ 0·52	+ 0·15	+ 0·11	+ 0·44	51 Cephei & λ Urs. Min.
11	”	− 2·2	0·0	+ 0·62	+ 0·12	+ 0·11	+ 0·49	
15	”	− 2·3	0·0	+ 0·59	+ 0·16	+ 0·12	+ 0·51	
18	”	− 2·3	0·0	+ 0·64	+ 0·18	+ 0·12	+ 0·52	
22	”	− 3·0	0·0	+ 0·71	+ 0·18	+ 0·11	+ 0·54	
25	”	− 1·9	0·0	+ 0·76	+ 0·17	+ 0·11	+ 0·56	51 Cephei & λ Urs Min.
Dec. 11	R	+ 4·4	0·0	+ 0·15	− 0·06	+ 0·06	+ 0·41	110 R. P. L. and Polaris.
24	”	− 0·3	0·0	+ 0·12	+ 0·01	+ 0·07	+ 0·56	110 R. P. L. and Polaris.
28	M	− 2·4	0·0	+ 0·23	+ 0·03	+ 0·07	+ 0·44	37 and 110 R. P. L.

Instrumental Corrections adopted in 1887.

Date.	Obser-ver.	Index.	Run in 5′.	Clock Rate.	Inclina-tion.	Collima-tion.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 7	M	− 4·9	0·0	+ 0·15	+ 0·06	+ 0·09	+ 0·38	110 and 37 R. P. L.
11	"	− 5·4	0·0	+ 0·20	+ 0·07	+ 0·11	+ 0·39	
14	R	− 6·6	0·0	+ 0·22	+ 0·10	+ 0·11	+ 0·40	
18	M	− 6·8	0·0	+ 0·24	+ 0·10	+ 0·12	+ 0·41	
21	"	− 7·0	0·0	+ 0·26	+ 0·10	+ 0·12	+ 0·42	
25	R	− 7·7	0·0	+ 0·26	+ 0·09	+ 0·10	+ 0·44	
28	M	− 8·0	0·0	+ 0·29	+ 0·12	+ 0·11	+ 0·45	δ Urs. Min. and 37 R. P. L.
Feb. 18	R	− 7·9	0·0	+ 0·41	+ 0·15	+ 0·12	+ 0·40	δ Urs. Min. and 40 R. P. L.
22	M	− 9·0	0·0	+ 0·43	+ 0·12	+ 0·12	+ 0·39	
25	R	− 8·9	0·0	+ 0·46	+ 0·14	+ 0·12	+ 0·37	δ Urs. Min. and 51 Cephei
Mar. 1	R	− 9·2	+ 0·2	− 0·05	+ 0·20	+ 0·09	+ 0·38	
4	M	− 9·2	+ 0·2	− 0·15	+ 0·22	+ 0·10	+ 0·38	δ Urs. Min. and 51 Cephei
Apl. 1	M	− 6·9	− 0·1	− 0·22	+ 0·33	+ 0·12	+ 0·35	λ Urs. Min. and 51 Cephei
8	"	− 7·0	− 0·1	− 0·13	+ 0·36	+ 0·09	+ 0·33	
26	R	− 6·5	− 0·1	− 0·14	+ 0·31	+ 0·07	+ 0·27	155 and 72 R. P. L.
29	M	− 5·2	− 0·1	− 0·10	+ 0·32	+ 0·06	+ 0·29	
May 3	R	− 5·0	0·0	− 0·07	+ 0·37	0·00	+ 0·31	
6	"	− 6·4	0·0	− 0·08	+ 0·36	+ 0·04	+ 0·33	
10	"	− 5·1	0·0	− 0·06	+ 0·37	+ 0·08	+ 0·35	
16	"	− 3·6	0·0	− 0·05	+ 0·43	+ 0·05	+ 0·39	155 and 92 R. P. L.
20	"	− 6·4	0·0	− 0·04	+ 0·44	+ 0·09	+ 0·44	
24	"	− 3·9	0·0	+ 0·01	+ 0·50	+ 0·05	+ 0·50	
27	"	− 4·0	0·0	+ 0·08	+ 0·47	+ 0·04	+ 0·54	
31	"	− 3·1	0·0	+ 0·15	+ 0·41	+ 0·04	+ 0·59	Polaris and 93 R. P. L.
June 3	M	− 3·6	0·0	+ 0·18	+ 0·43	+ 0·04	+ 0·55	
7	"	− 3·0	0·0	+ 0·01	+ 0·45	+ 0·04	+ 0·51	
10	"	− 4·8	0·0	− 0·04	+ 0·46	+ 0·04	+ 0·47	
14	"	− 3·1	0·0	+ 0·06	+ 0·41	+ 0·06	+ 0·42	Polaris and 110 R. P. L.
28	"	− 1·6	0·0	+ 0·12	+ 0·36	+ 0·05	+ 0·71	Polaris and 110 R. P. L.
July 1	"	− 0·2	0·0	+ 0·05	+ 0·34	+ 0·10	+ 0·67	
12	"	− 1·0	0·0	− 0·47	+ 0·34	+ 0·10	+ 0·51	
22	"	− 0·2	0·0	− 0·19	+ 0·28	+ 0·08	+ 0·36	ζ Ophiuchi and 110 R.P.L.
29	"	− 0·1	0·0	− 0·08	+ 0·27	+ 0·09	+ 0·61	51 Cephei & δ Urs. Min.
Aug. 27	"	+ 4·7	0·0	− 0·78	+ 0·02	+ 0·03	+ 0·51	θ Ophiuchi and δ Urs. Min.
Oct. 1	R	+ 6·2	0·0	− 0·24	− 0·02	+ 0·09	+ 0·47	
5	"	+ 5·4	0·0	− 0·46	+ 0·05	+ 0·10	+ 0·47	
10	"	+ 8·0	0·0	− 0·42	+ 0·13	+ 0·10	+ 0·46	72 and 155 R. P. L.
Nov. 3	"	+ 9·5	0·0	− 0·82	+ 0·18	+ 0·11	+ 0·44	92 and 155 R. P. L.
7	"	+ 9·5	0·0	− 0·81	+ 0·19	+ 0·11	+ 0·44	
17	"	+ 10·9	0·0	− 1·06	+ 0·33	+ 0·13	+ 0·43	
21	"	+ 10·5	0·0	− 1·05	+ 0·32	+ 0·14	+ 0·43	92 and 155 R. P. L.
26	"	+ 11·7	0·0	− 1·09	+ 0·26	+ 0·16	+ 0·43	

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.				1883.			1884.			1885.		
					Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	°	′		s	″		s	″		s	″
ι Ceti	0	14	99	28	7	− 0·06	− 2·7	13	+ 0·04	+ 0·2	...	......	......
12 Ceti	0	24	94	36	...	......	......	2	+ 0·06	+ 1·1	...	......	......
β Ceti...	0	38	108	37	...	......	......	2	+ 0·05	+ 1·6	...	......	......
δ Piscium	0	43	83	3	7	+ 0·04	− 0·7	3	− 0·04	0·0	...	......	......
β Andromedæ ...	1	3	55	0	2	− 0·07	− 1·0	11	− 0·06	+ 0·1	1	0·0	− 0·7
α Urs. Min. (*Polaris*)..	1	16	1	19	14	+ 0·23	+ 0·3	6	+ 0·62	+ 0·7	...	......	......
θ Ceti...	1	18	98	47	2	− 0·04	+ 1·1	...	......	......	...	......	......
η Piscium	1	25	75	15	4	0·00	+ 0·1	1	− 0·12	− 0·7	...	......	......
α Eridani (*Achernar*) .	1	33	147	50	1	+ 0·27	+ 0·9	...	......	......	...	......	......
ν Piscium	1	35	85	6	1	+ 0·04	− 0·7	...	......	......	...	......	......
ο Piscium	1	39	81	26	10	− 0·03	+ 0·8	10	0·00	− 0·8	...	......	......
β Arietis	1	48	69	46	13	+ 0·07	− 0·6	...	......	......	...	......	......
α Arietis	2	1	67	5	17	+ 0·01	+ 0·4	2	− 0·04	+ 0·1	...	......	......
67 Ceti	2	11	96	57	3	− 0·04	− 0·1	4	+ 0·05	+ 0·4	...	......	......
ξ² Ceti	2	22	82	4	1	+ 0·01	− 2·5	...	......	......	...	......	......
γ² Ceti	2	37	87	15	2	0·00	− 1·2	...	......	......	...	......	......
σ Arietis	2	45	75	24	7	+ 0·03	− 1·1	13	+ 0·02	− 2·2	...	......	......
α Ceti	2	56	86	22	7	− 0·04	− 1·0	2	+ 0·07	+ 1·0	...	......	......
δ Arietis	3	5	70	43	7	− 0·04	− 1·0	8	− 0·04	+ 0·3	...	......	......
α Persei	3	16	40	33	3	− 0·13	− 0·4	...	......	......	...	......	......
ο Tauri	3	19	81	23	6	− 0·05	− 1·3	6	− 0·04	− 0·3	8	+ 0·01	− 0·7
ε Eridani	3	27	99	51	6	+ 0·07	+ 0·1	...	......	...	9	− 0·01	− 0·5
η Tauri	3	41	66	15	4	+ 0·03	− 0·7	2	− 0·02	+ 2·1	...	......	......
γ¹ Eridani	3	53	103	50	...	......	......	6	+ 0·02	+ 0·8	...	......	......
A Tauri	3	58	68	14	16	+ 0·01	− 0·7	...	......	......	9	+ 0·02	− 1·0
ο¹ Eridani	4	6	97	8	1	+ 0·07	− 2·3	...	......	......	...	......	......
γ Tauri	4	13	74	39	13	− 0·01	0·0	...	......	......	...	......	......
ε Tauri	4	22	71	5	2	+ 0·05	+ 0·1	3	− 0·06	− 0·1	...	......	......
α Tauri (*Aldebaran*)...	4	29	73	44	8	+ 0·02	− 0·2	3	− 0·08	− 0·4	...	......	......
μ Eridani	4	40	93	28	...	......	......	...	......	......	10	+ 0·02	+ 0·5
ι Aurigæ	4	49	57	1	9	− 0·01	+ 1·6	...	......	......	...	......	......
α Aurigæ (*Capella*)...	5	8	44	7	9	− 0·17	− 2·3	...	......	......	...	......	......
β Orionis (*Rigel*) ...	5	9	98	20	8	− 0·02	− 1·1	1	+ 0·05	+ 1·8	...	......	......
β Tauri	5	19	61	30	4	− 0·03	− 0·1	1	− 0·10	+ 3·1	...	......	......
δ Orionis	5	26	90	23	1	+ 0·11	− 0·7	2	+ 0·05	− 2·5	10	+ 0·02	− 2·0

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Star.	Approximate Place 1884.				1883.			1884.			1885.		
					Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	°	′		s	″		s	″		s	″
α Leporis	5	28	107	54	2	+ 0·02	+ 0·2	...	......	......	...	......	......
ε Orionis	5	30	91	17	...	......	......	1	+ 0·17	+ 1·5	10	− 0·01	+ 1·6
κ Orionis	5	42	99	43	4	+ 0·04	+ 1·5	...	......	...	10	− 0·06	+ 1·4
α Orionis (*Var.*)	5	49	82	37	...	......	......	9	0·00	+ 0·7	...	......	......
η Geminorum	6	8	67	28	10	− 0·01	− 1·3	...	......	......	10	+ 0·02	− 1·4
μ Geminorum	6	16	67	26	...	......	......	1	− 0·06	+ 1·2	...	......	......
ξ Geminorum	6	39	76	59	10	− 0·01	− 0·9	...	......	......	10	+ 0·01	− 0·3
Cephei 51 (*Hev.*)	6	46	2	47	10	+ 0·18	− 0·7	8	+ 0·23	− 0·6	12	− 0·30	− 1·2
θ Canis Majoris	6	49	101	54	...	......	......	...	......	......	10	− 0·01	− 0·8
ε Canis Majoris	6	54	118	49	...	......	......	1	0·00	− 0·7	...	......	......
γ Canis Majoris	6	59	105	28	...	......	......	1	+ 0·06	− 2·4	...	......	......
β Canis Minoris	7	21	81	29	10	+ 0·02	− 1·6	...	......	......	10	+ 0·02	− 1·0
α Can. Min. (*Procyon*)	7	33	84	29	1	......	......	1	+ 0·05	− 1·4	...	......	......
ξ Argus	7	44	114	34	10	+ 0·04	− 1·2	10	− 0·10	+ 1·9	10	− 0·01	+ 2·6
15 Argûs	8	3	113	58	...	......	......	9	− 0·09	− 0·3	...	......	......
β Cancri	8	10	80	27	...	......	......	...	......	......	10	0·00	− 1·5
η Cancri	8	26	69	10	...	......	......	2	+ 0·13	− 1·2	...	......	......
γ Cancri	8	37	68	7	10	− 0·03	+ 1·1	...	......	......	8	− 0·04	0·0
ε Hydræ	8	41	83	9	...	......	......	2	+ 0·03	− 1·1	...	......	......
α Cancri	8	52	77	42	...	......	......	1	+ 0·04	− 0·6	6	+ 0·01	− 0·2
κ Cancri	9	1	78	52	...	......	......	1	0·00	+ 0·5	...	......	......
83 Cancri	9	13	71	48	...	......	......	2	+ 0·16	− 2·5	...	......	......
ι Argus	9	14	148	47	10	+ 0·02	+ 2·5	...	......	......	...	......	......
α Hydræ	9	22	98	9	...	......	......	2	+ 0·07	− 0·6	...	......	......
ο Leonis	9	35	79	35	...	......	......		......	......	4	+ 0·02	+ 0·8
ε Leonis	9	39	65	42	...	......	......	2	+ 0·22	− 0·2	...	......	......
α Leonis (*Regulus.*)	10	2	77	28	...	......	......	3	+ 0·03	− 3·2	...	......	......
γ¹ Leonis	10	14	69	34	...	......	......	3	+ 0·02	− 1·0	...	......	......
μ Hydræ	10	20	106	15	...	......	......	...	......	......	10	− 0·04	− 1·1
ρ Leonis	10	27	80	6	...	......	......	1	− 0·04	− 1·8	...	......	......
l Leonis	10	43	78	50	...	......	......	1	+ 0·02	− 1·9	...	......	......
d Leonis	10	55	85	46	10	+ 0·02	− 1·0	...	......	......	10	+ 0·03	− 1·1
χ Leonis	10	59	82	2	...	......	......	2	+ 0·01	− 1·8	...	......	......
δ Leonis	11	8	68	50	...	......	......	2	+ 0·03	− 0·2	...	......	......
τ Leonis	11	22	86	30	10	+ 0·05	+ 0·7	10	− 0·01	− 0·9	8	+ 0·02	− 0·6

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.				1883.			1884.			1885.		
					Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	°	′		s	″		s	″		s	″
β Leonis	11	43	74	47	...	......	......	1	+ 0·07	− 0·8	...	......	......
π Virginis	11	55	82	44	10	− 0·05	− 1·1	10	0·00	− 2·2	10	+ 0·02	− 1·8
ε Corvi	12	4	111	58	...	......	......	1	− 0·15	− 1·7	...	......	......
η Virginis	12	14	90	1	...	......	......	3	− 0·03	+ 0·7	..	......	......
δ² Corvi	12	24	105	52	...	......	......	...	......	......	5	− 0·07	+ 0·7
δ Virginis ...	12	50	85	58	20	+ 0·02	− 3·2	...	......	.. ...	2	+ 0·03	− 2·3
ε Virginis	12	56	78	25	30	− 0·01	+ 0·1	10	+ 0·02	− 1·6	.	......	......
θ Virginis	13	4	94	55	11	+ 0·01	− 2·0	...	......	......	...	......	......
α Virginis (*Spica*) ...	13	19	100	33	...	......	......	1	− 0·08	− 1·4	...	......	......
ζ Virginis	13	29	90	0	10	+ 0·17	+ 2·4	...	......	... .	...	... .	......
τ Bootis	13	42	71	58	10	− 0·03	− 3·2	...	... ..	......	...	......	.....
η Ursæ Majoris ...	13	43	40	6	10	− 0·14	− 3·0	...	.....	......	...	......	......
η Bootis	13	49	71	1	10	− 0·13	+ 1·8	1	+ 0·12	− 1·0	...	......	......
τ Virginis	13	56	87	54	...	......	......	2	+ 0·11	− 2·8	...	......	......
α Bootis (*Arcturus*)...	14	10	70	13	...	......	.....	3	+ 0·01	− 1·2	...	......	......
ρ Bootis	14	27	59	7	...	......	......	1	− 0·04	− 2·5	...	... ..	......
ε³ Bootis	14	40	62	26	...	......	......	4	− 0·06	− 1·1	...	......	......
α Libræ	14	44	105	34	...	......	......	3	+ 0·09	− 4·0	...	......	......
β Ursæ Minoris ...	14	51	15	22	5	− 0·06	− 2·0	...	......	......	...	.. ...	......
β Libræ	15	11	98	57	10	+ 0·05	− 0·5	3	− 0·02	+ 0·2	...	......	......
α Coronæ ...	15	30	62	54	...	......	......	7	− 0·05	− 0·4	...	......	......
α Serpentis	15	39	83	13	14	+ 0·01	− 0·9	10	+ 0·05	+ 0·3	...	......	......
ε Serpentis	15	45	85	10	10	0·00	− 1·9	...	......	.....	...	......	......
ζ Ursæ Minoris ...	15	48	11	51	...	......	......	1	− 0·03	− 2·7	...	......	......
β¹ Scorpii	15	59	109	29	...	......	......	5	+ 0·05	− 0·6	...	......	......
δ Ophiuchi	16	8	93	24	...	... ..	......	2	− 0·03	− 0·8	...	......	......
γ Herculis	16	17	70	34	10	− 0·02	− 0·7	...	......	......	...	......	......
α Scorpii (*Antares*) ...	16	22	116	10	...	......	......	2	+ 0·02	+ 0·4	...	......	......
ζ Ophiuchi	16	31	100	20	20	+ 0·02	− 0·8	...	......	.. ...	...	......	......
ζ Herculis	16	37	58	11	...	......	......	3	− 0·13	+ 0·8	...	......	......
ε Ursæ Minoris ..	16	58	7	46	2	+ 0·11	− 2·9	1	− 0·30	+ 4·9	...	......	......
η Ophiuchi	17	4	105	35	20	+ 0·02	+ 0·1	...	......	......	5	+ 0·07	− 0·7
α¹ Herculis	17	9	75	29	...	......	.....	3	+ 0·01	− 1·7	...	.....	......
σ Ophiuchi	17	21	85	45	10	+ 0·02	+ 0·7	...	.. ...	......	...	......	......
α Ophiuchi	17	30	77	21	...	......	......	1	+ 0·07	+ 1·1	...	......	......

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.				1883.			1884.			1885.		
					Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	°	′		s	″		s	″		s	″
β Ophiuchi	17	38	85	23	20	− 0·03	− 0·6	10	+ 0·01	− 0·9	5	− 0·06	+ 0·1
μ Herculis	17	42	62	13	...	......	......	4	− 0·02	− 0·4	...	......	......
72 Ophiuchi	18	2	80	27	...	......	......	10	− 0·01	− 1·5	4	− 0·01	− 1·9
μ Sagittarii	18	7	111	5	...	......	......	1	− 0·05	− 0·4	...	......	......
δ Ursæ Minoris	18	10	3	23	2	− 1·21	− 1·3	9	+ 0·14	+ 1·4	12	− 0·11	− 0·5
η Serpentis	18	15	92	56	20	+ 0·01	+ 1·5	...	......	......	1	− 0·01	+ 1·1
λ Sagittarii	18	21	115	29	20	+ 0·02	− 2·2	2	+ 0·18	− 2·1	1	− 0·05	− 1·3
α Lyræ (*Vega*)	18	33	51	19	...	......	......	6	− 0·14	− 1·8	...	......	......
β^1 Lyræ (*Var.*)	18	46	56	46	...	......	......	4	− 0·08	+ 0·1	...	......	......
ε Aquilæ	18	54	75	5	20	− 0·01	− 0·9	...	......	......	1	+ 0·05	− 1·7
ω Aquilæ	19	12	78	37	...	......	......	1	+ 0·05	− 0·8	...	......	......
δ Aquilæ	19	20	87	7	...	......	......	2	+ 0·02	− 0·5	...	......	......
λ Ursæ Minoris	19	40	1	3	...	......	......	5	− 0·63	+ 0·2	6	− 0·77	+ 0·6
γ Aquilæ	19	41	79	40	...	......	......	4	− 0·07	− 1·2	...	......	......
α Aquilæ (*Altair*)	19	45	81	26	...	......	......	3	+ 0·02	− 1·0	2	− 0·02	− 1·0
β Aquilæ	19	50	83	53	...	......	......	1	0·00	− 1·1	...	......	......
θ Aquilæ	20	5	91	10	20	− 0·01	− 0·4	20	+ 0·04	+ 0·2	10	+ 0·03	− 1·1
α^2 Capricorni	20	12	102	54	...	......	......	2	+ 0·12	− 2·9	...	...	......
ε Delphini	20	28	79	5	25	− 0·02	+ 0·6	10	− 0·03	+ 0·6	10	− 0·02	− 1·2
α Cygni	20	37	45	8	...	......	......	5	− 0·11	− 2·6	...	......	......
ε Aquarii	20	41	99	55	21	+ 0·02	0·0	10	− 0·06	+ 1·4	10	+ 0·04	− 0·5
32 Vulpeculæ	20	50	62	23	...	......	......	1	− 0·14	+ 2·1	...	......	......
θ Capricorni	20	59	107	42	20	− 0·01	+ 1·7	1	+ 0·05	− 0·9	6	− 0·06	+ 0·3
61^1 Cygni	21	2	51	49	...	......	......	2	+ 0·09	− 2·1	...	......	......
ζ Cygni	21	8	60	15	...	......	......	1	− 0·02	− 2·7	...	......	......
α Cephei	21	16	27	54	...	......	......	8	− 0·10	− 0·2	...	......	......
β Aquarii	21	25	96	5	...	......	......	2	+ 0·05	− 0·3	...	......	......
ε Pegasi	21	38	80	39	20	− 0·05	− 1·0	...	......	......	...	......	......
α Aquarii	22	0	90	53	21	+ 0·05	+ 0·7	1	+ 0·09	+ 1·4	...	......	......
θ Aquarii	22	11	98	22	23	+ 0·01	+ 0·3	...	......	......	...	......	......
γ Aquarii	22	16	91	58	10	0·00	− 0·4	10	+ 0·03	+ 1·7	4	0·00	+ 1·6
ζ Pegasi	22	36	79	46	...	......	......	2	− 0·02	+ 1·0	...	......	......
λ Aquarii	22	47	98	12	15	+ 0·02	+ 0·3	14	+ 0·05	+ 1·5	3	+ 0·02	+ 0·4
α Pis. Aus. *Fomalhaut.*	22	51	120	14	...	......	......	2	− 0·01	− 0·1	...	......	......
α Pegasi (*Markab*)	22	59	75	25	11	− 0·03	+ 1·6	..	......	......	...	......	......

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.		1883.			1884.			1885.		
			Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h. m.	° ′		s	″		s	″		s	″
γ Piscium	23 11	87 21	8	0·00	− 1·3	2	+ 0·04	+ 0·4	...	......	......
κ Piscium	23 21	89 23	...	......	......	1	− 0·04	+ 3·6	...	......	......
ι Piscium	23 34	85 0	...	......	......	1	− 0·09	+ 1·7	...	......	......
ω Piscium	23 53	83 47	...	......	......	1	+ 0·03	+ 0·7	...	......	......

ERRATA.

Page	No.	Subject	For	Read
		Errata in Vol. VII.		
255	9	Precession in R. A.	2·8712	2·8702
257	69	„	2·7103	1·7103
287	566	„	3·9943	3·9936
		Errata in Vol. VIII.		
80	62	Date	Sep.	Feb.
53	120	Sign of Precession in R. A.	−	+

SEPARATE RESULTS
OF
OBSERVATIONS
OF THE FIXED STARS
MADE WITH THE
MADRAS MERIDIAN CIRCLE
IN THE YEAR
1883

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
1 *Stone* 8.									
Nov. 14	7·0	0	1	22·53	...	116	0	14·0	M
16	7·0		1	22·46	...		0	12·8	M
20	...		1	22·65	4		0	13·6	M
26	7·0		1	22·33	...		0	15·6	M
27	7·0		1	22·51	...		0	12·7	M
2 6 *Ceti.*									
Nov. 15	...	0	5	18·51	...	106	6	38·5	M
29	...		5	18·40	...		6	35·4	M
Dec. 4	...		5	18·41	...		6	37·4	R
5	...		5	18·31	...		6	37·3	R
6	...		5	18·43	...		6	38·9	R
3 *Stone* 63.									
Nov. 16	...	0	7	48·55	...	116	56	13·1	M
21	...		7	48·51	...		56	10·6	M
26	...		7	48·24	...		56	12·4	M
27	...		7	48·39	...		56	9·6	M
30	...		7	48·51	...		56	14·1	M
4 *Taylor* 37.									
Nov. 14	...	0	10	13·79	...	122	5	41·5	M
29	...		10	13·51	...		5	43·0	M
Dec. 4	...		10	13·68	...		5	45·9	R
5	...		10	13·73	...		5	46·2	R
6	...		10	13·68	...		5	45·7	R
5 8 *Ceti ι*									
Dec. 7	...	0	13	27·88	...	99	28	19·5	R
8	...		13	27·84	...		28	20·0	R
17	...		13	27·85	...		28	20·2	R
18	...		13	27·79	...		28	20·4	R
19	...		13	27·72	...		28	20·8	R
20	...		13	27·81	...		28	19·9	R
22	...		13	27·80	...		28	19·1	R
6 *Stone* 109.									
Nov. 15	7·3	0	14	18·79	...	126	33	8·4	M
16	7·0		14	18·72	...		33	10·2	M
21	7·0		14	18·75	...		33	11·3	M
26	7·0		14	18·72	...		33	9·8	M
30	7·0		14	18·88	...		33	12·2	M
7 *Taylor* 78.									
Nov. 14	7·0	0	18	31·02	...	92	52	1·6	M
20	6·7		18	30·94	...		52	1·2	M
Dec. 4	6·7		18	31·00	...		51	59·1	R
5	6·7		18	31·06	...		51	59·0	R
6	6·7		18	30·99	...		51	59·1	R
8 *Stone* 158.									
Nov. 15	...	0	21	22·93	...	116	11	42·3	M
16	...		21	22·83	...		11	42·1	M
21	...		21	22·87	...		11	41·8	M
29	...		21	22·65	4		11	38·9	M
Dec. 7	...		21	22·67	...		11	40·1	R
9 *Taylor* 101.									
Nov. 30	...	0	22	40·16	...	130	33	47·1	M
Dec. 4	...		22	40·20	...		33	43·5	R
5	...		22	40·24	...		33	43·9	R
6	...		22	40·06	...		33	45·3	R
8	...		22	40·09	...		33	43·4	R
10 *Taylor* 115.									
Nov. 14	...	0	24	31·62	5	114	26	8·4	M
16	...		24	31·82	3		26	7·8	M
20	...		24	31·52	...		26	7·3	M
21	...		24	31·65	4		26	7·7	M
26	...		24	31·79	3		26	7·1	M
11 *Stone* 237.									
Nov. 14	7·0	0	32	53·34	...	136	32	50·0	M
15	7·0		32	53·46	...		32	47·3	M
16	7·0		32	53·44	...		32	49·6	M
20	...		32	53·45	3		32	50·7	M
21	7·0		32	53·30	4		32	50·4	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
12				*Stone* 240.					
Dec. 17	7·0	0	33	16·88	...	133	56	18·4	R
18	7·0		33	16·97	...		56	19·6	R
19	7·0		33	16·87	...		56	19·6	R
20	7·0		33	16·90	...		56	19·6	R
22	7·0		33	16·91	...		56	19·6	R
13				*Taylor* 181.					
Nov. 5	...	0	34	16·83	...	135	26	24·7	M
14				*Taylor* 215.					
Nov. 14	...	0	39	25·06	...	133	18	51·6	M
15	...		39	25·09	...		18	51·8	M
16	...		39	25·01	...		18	51·5	M
21	...		39	24·99	...		18	52·8	M
23	...		39	25·15	...		18	53·4	M
15				*W. B. E.* O. 658.					
Dec. 4	9·1	0	39	36·26	...	88	55	54·4	R
16				63 *Piscium* δ					
Nov. 26	...	0	42	36·66	...	88	3	8·9	M
27	...		42	36·60	...		3	7·1	M
29	...		42	36·69	...		3	5·1	M
Dec. 11	...		42	36·66	...		3	6·8	R
20	...		42	36·68	...		3	5·8	R
22	...		42	36·72	...		3	6·8	R
31	...		42	36·82	...		3	5·8	M
17				*Anon.*					
Nov. 30	9·0	0	42	38·72	...	89	0	20·4	M
18				*Anon.*					
Dec. 6	9·0	0	43	53·51	...	88	58	5·9	R
19				*Taylor* 252.					
Dec. 7	...	0	44	34·58	...	134	1	58·4	R
8	...		44	34·48	4		1	57·3	R
17	...		44	34·28	...		1	59·6	R
18	...		44	34·33	...		1	59·2	R
19	...		44	34·46	...		1	58·9	R
20				*Stone* 342.					
Nov. 14	...	0	46	55·96	...	114	38	36·9	M
15	...		46	55·90	...		38	37·5	M
16	...		46	55·96	...		38	38·1	M
20	...		46	55·91	...		38	37·6	M
21	...		46	55·75	...		38	36·8	M
21				*Stone* 365.					
Nov. 23	...	0	50	15·01	...	118	24	35·5	M
26	...		50	14·73	...		24	34·7	M
27	...		50	14·96	...		24	34·8	M
29	...		50	14·76	...		24	32·1	M
30	...		50	15·08	...		24	35·0	M
22				*R. P. L.* 10.					
Nov. 12	...	0	51	28·43	3	1	36	16·7	M
13	...		51	27·48	3			16·7	M
23				*Anon.*					
Nov. 10	7·0	0	52	8·16	...	131	53	18·5	M
24				2 *Ursæ Minoris.*					
Jan. 5	...	0	52	57·38	3	4	22	15·0	R
25				*Stone* 392.					
Nov. 14	...	0	55	50·27	...	129	32	54·9	M
16	...		55	50·22	...		32	57·4	M
20	...		55	50·28	...		32	56·9	M
21	...		55	50·22	...		32	56·9	M
26	...		55	50·03	...		32	56·5	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
26 *R. P. L.* 14.									
Dec. 29	...	0	56	36·82	3	3	28	41·6	R
27 *Stone* 407.									
Nov. 15	...	0	57	32·77	5	137	1	35·8	M
23	...		57	32·71	...		1	40·2	M
27	...		57	32·55	...		1	36·7	M
30	...		57	32·82	...		1	36·9	M
Dec. 7	...		57	32·46	...		1	37·5	R
28 30 *Ceti.*									
Nov. 14	...	1	1	53·21	...	100	24	42·8	M
16	...		1	52·99	...		24	40·5	M
20	...		1	53·04	5		24	42·6	M
26	...		1	53·04	...		24	44·3	M
29	...		1	53·21	6		24	43·4	M
29 43 *Andromedæ β*									
Jan. 1	...	1	3	10·83	...	54	59	59·5	R
5	...		3	11·00	...		59	57·9	R
30 *Taylor* 391.									
Nov. 15	...	1	6	51·54	...	121	25	18·7	M
16	...		6	51·57	...		25	19·5	M
23	...		6	51·42	...		25	20·9	M
26	...		6	51·34	...		25	18·7	M
27	...		6	51·46	...		25	17·8	M
31 *Anon.*									
Nov. 9	9·0	1	9	4·03	5	145	51	44·7	M
32 *Anon.*									
Jan. 2	8·0	1	10	7·77	...	124	38	59·1	R
3	8·0		10	7·72	...		38	59·8	R
33 *Stone* 489.									
Dec. 11	6·7	1	10	57·89	...	132	37	39·5	R
17	6·7		10	57·79	...		37	39·3	R
18	6·7		10	57·65	...		37	39·4	R
19	7·0		10	57·74	...		37	39·2	R
20	6·7		10	57·84	...		37	39·0	R
34 *Anon.*									
Jan. 5	7·0	1	13	7·84	...	130	43	13·0	R
Nov. 10	7·0		13	7·66	...		43	14·7	M
13	7·0		13	7·70	...		43	13·0	M
14	7·0		13	7·71	6		43	14·6	M
35 *Taylor* 428.									
Nov. 15	6·7	1	13	33·26	...	133	56	57·9	M
16	...		13	33·21	...		56	58·0	M
20	6·7		13	33·18	...		56	59·7	M
21	...		13	33·05	3		56	58·9	M
Dec. 22	6·7		13	33·12	...		56	57·5	R
36 *R. P. L.* 18.									
Dec. 28	...	1	13	38·26	3	2	2	52·1	R
37 1 *Ursæ Minoris a, Polaris—s.p.*									
Apl. 3	...	1	15	49·92	3	1	18	55·7	M
4	...		15	49·81	3		18	54·8	M
5	...		15	49·63	3		18	54·5	M
6	...		15	49·95	3		18	53·7	M
7	...		15	49·98	3		18	54·3	M
9	...		15	50·55	3		18	55·4	M
16	...		15	50·03	3		18	54·1	M
17	...		15	49·75	3		18	53·2	M
21	...		15	49·25	3		18	51·8	M
May 3	...		15	50·46	3		18	56·1	R
5	...		15	52·90	3		18	54·3	R
7	...		15	52·20	3		18	54·8	R
8	...		15	51·12	3		18	54·5	R
9	...		15	50·58	3		18	54·5	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.		Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
38	*45 Ceti θ¹*									
Jan.	2	...	1	18	10·33	...	98	47	15·7	R
	3	...		18	10·46	...		47	15·9	R
39	*93 Piscium ρ*									
Dec.	18	...	1	19	57·00	...	71	26	7·9	R
40	*Anon.*									
Dec.	5	9·7	1	20	7·18	3	122	56	18·0	R
	6	9·7		20	7·27	4		56	19·3	R
41	*Taylor 487.*									
Nov.	14	...	1	24	51·92	...	116	48	45·2	M
	16	...		24	51·92	...		48	45·8	M
	20	...		24	51·87	5		48	47·4	M
	21	...		24	51·83	5		48	46·1	M
	23	...		24	52·03	...		48	47·5	M
42	*99 Piscium η*									
Dec.	27	...	1	25	13·33	...	75	15	28·0	R
	28	...		25	13·31	...		15	27·9	R
	29	...		25	13·43	...		15	27·1	R
	31	...		25	13·34	...		15	28·4	M
43	*Stone 596.*									
Jan.	5	7·0	1	25	30·74	...	128	23	39·4	R
	9	...		25	30·59	6		23	39·7	M
Nov.	15	7·0		25	30·65	...		23	40·2	M
Dec.	4	7·0		25	30·43	...		23	38·9	R
	5	7·0		25	30·41	...		23	39·5	R
44	*Taylor 524.*									
Nov.	16	...	1	29	48·62	4	147	36	1·8	M
	30	...		29	48·54	...		36	1·2	M
Dec.	4	...		29	48·47	...		36	2·8	R
	5	...		29	48·52	...		36	3·5	R
	6	...		29	48·28	...		35	59·5	R
45	*α Eridani, Achernar.*									
Dec.	28	...	1	33	21·53	...	147	49	54·4	R
46	*Anon.*									
Jan.	1	7·0	1	33	27·38	...	138	31	50·3	R
	2	7·0		33	27·47	...		31	50·3	R
	3	7·0		33	27·34	...		31	50·5	R
	4	7·0		33	27·37	...		31	51·1	R
47	*106 Piscium ν*									
Dec.	27	...	1	35	20·52	...	85	6	18·0	R
48	*Anon.*									
Jan.	5	8·0	1	36	20·23	...	149	14	24·3	R
Dec.	5	8·0		36	20·07	...		14	24·6	R
	6	8·0		36	19·97	...		14	24·3	R
	20	8·0		36	20·02	...		14	25·8	R
49	*110 Piscium ο*									
Nov.	12	...	1	39	12·86	...	81	25	55·9	M
	13	...		39	12·98	...		25	55·0	M
	16	...		39	12·94	...		25	54·6	M
	20	...		39	12·79	...		25	55·5	M
	21	...		39	12·92	...		25	55·1	M
	23	...		39	12·86	...		25	56·6	M
	27	...		39	12·84	...		25	53·9	M
	30	...		39	12·90	...		25	54·8	M
Dec.	28	...		39	12·89	...		25	54·6	R
	29	...		39	12·90	...		25	54·7	R
50	*Taylor 578.*									
Nov.	14	...	1	40	6·98	...	96	19	7·3	M
	15	...		40	6·86	4		19	8·3	M
Dec.	4	...		40	6·71	...		19	4·9	R
	8	...		40	6·74	...		19	5·4	R
	17	...		40	6·76	..		19	6·2	R

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Number and Date.		Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
			h.	m.	s.		°	′	″	
51				*Stone* 704.						
Jan.	1	8·0	1	41	46·30	...	133	54	17·9	R
	2	8·0		41	46·19	...		54	17·2	R
	3	7·0		41	45·95	...		54	17·9	R
	4	7·0		41	46·02	...		54	15·9	R
	5	7·0		41	46·15	...		54	15·8	R
52				*Taylor* 616.						
Nov.	14	...	1	46	22·11	5	140	47	8·7	M
	15	...		46	22·09	5		47	8·2	M
	20	...		46	22·04	...		47	10·0	M
	27	...		46	22·09	...		47	7·3	M
	30	...		46	22·03	5		47	8·0	M
53				6 *Arietis β*						
Dec.	4	...	1	48	10·64	...	69	45	51·5	R
	5	...		48	10·60	...		45	51·7	R
	6	...		48	10·57	...		45	52·9	R
	7	...		48	10·60	...		45	49·9	R
	8	...		48	10·63	...		45	50·3	R
	11	...		48	10·55	...		45	52·3	R
	17	...		48	10·62	...		45	51·8	R
	18	...		48	10·61	...		45	52·4	R
	19	...		48	10·68	...		45	52·8	R
	20	...		48	10·57	...		45	51·2	R
	22	...		48	10·64	...		45	52·1	R
	25	...		48	10·61	...		45	51·6	R
	26	...		48	10·58	...		45	51·2	R
54				*Taylor* 626.						
Jan.	2	...	1	48	20·95	...	129	10	21·5	R
	3	...		48	20·89	...		10	21·6	R
	4	...		48	20·98	...		10	19·9	R
	5	...		48	21·11	...		10	19·6	R
	8	...		48	20·78	...		10	23·0	M
55				*Anon.*						
Jan.	4	8·0	1	53	53·49	...	127	35	3·2	R
	5	8·0		53	53·47	...		35	2·8	R
	9	...		53	53·43	...		35	5·5	M
	12	...		53	53·53	...		35	4·6	M
Nov.	13	8·0		53	53·27	...		35	2·6	M
56				*Stone* 812.						
Nov.	14	...	1	57	20·60	...	105	52	13·6	M
	15	...		57	20·47	...		52	13·6	M
	16	...		57	20·44	...		52	13·8	M
	23	...		57	20·48	...		52	13·8	M
57				*Stone* 824.						
Jan.	4	7·0	1	59	40·37	...	134	4	6·7	R
	5	7·0		59	40·57	...		4	6·2	R
	9	...		59	40·48	...		4	4·8	M
58				13 *Arietis a*						
Jan.	1	...	2	0	34·75	...	67	5	28·2	R
	2	...		0	34·79	...		5	28·0	R
	3	...		0	34·72	...		5	28·3	R
	8	...		0	34·60	...		5	31·6	M
	11	...		0	34·59	...		5	31·4	M
	12	...		0	34·75	...		5	30·3	M
	15	...		0	34·58	...		5	28·7	M
	16	...		0	34·64	...		5	30·5	M
	18	...		0	34·59	...		5	30·7	M
	19	...		0	34·77	...		5	32·0	M
	20	...		0	34·78	...		5	31·2	M
	22	...		0	34·80	...		5	30·4	M
	24	...		0	34·72	...		5	29·6	M
Dec.	25	...		0	34·66	...		5	29·4	R
	26	...		0	34·69	...		5	28·7	R
	29	...		0	34·70	...		5	30·0	R
	31	...		0	34·69	...		5	29·5	M
59				*Stone* 834.						
Nov.	20	7·0	2	1	19·24	...	142	33	5·4	M
Dec.	4	6·7		1	18·88	...		33	3·5	R
	5	6·7		1	18·90	...		33	4·8	R
	6	6·7		1	18·80	...		33	3·9	R
	7	6·7		1	19·06	...		33	5·0	R
60				*Stone* 850.						
Nov.	15	7·0	2	3	48·66	...	126	22	45·6	M
	16	...		3	48·62	6		22	44·5	M
Dec.	18	7·0		3	48·31	...		22	46·2	R
	20	7·0		3	48·29	...		22	45·0	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
61 *Stone* 870.									
Nov. 14	7·0	2	5	46·73	...	128	55	5·2	M
21	...		5	46·75	...		55	5·2	M
Dec. 4	7·0		5	46·83	...		55	5·4	R
5	7·0		5	46·75	...		55	5·8	R
6	7·0		5	46·58	...		55	5·8	R
62 *Anon.*									
Jan. 1	7·7	2	8	5·62	...	131	48	51·0	R
2	7·7		8	5·48	4		48	51·5	R
63 *Anon.*									
Jan. 5	8·5	2	9	23·47	...	124	51	42·5	R
12	8·5		9	23·67	...		51	43·2	M
16	...		9	23·71	...		51	43·0	M
Nov. 13	8·5		9	23·52	...		51	42·8	M
16	8·5		9	23·83	4		51	44·0	M
64 *Taylor* 750.									
Jan. 4	6·5	2	9	47·80	...	131	42	43·9	R
65 67 *Ceti.*									
Dec. 28	...	2	11	8·73	...	96	57	42·9	R
29	...		11	8·68	...		57	43·9	R
31	...		11	8·83	...		57	44·0	M
66 *Stone* 911.									
Nov. 20	7·0	2	11	58·70	...	143	25	53·9	M
Dec. 4	6·7		11	58·80	...		25	54·0	R
5	6·7		11	58·77	...		25	54·6	R
6	6·7		11	58·78	...		25	54·6	R
7	6·7		11	58·73	...		25	55·1	R
67 *Anon.*									
Jan. 3	7·0	2	14	28·54	...	132	33	31·6	R
4	7·0		14	28·68	...		33	29·9	R
68 *Stone* 935.									
Nov. 21	...	2	16	3·51	...	140	50	20·3	M
27	...		16	3·78	...		50	17·8	M
Dec. 17	6·7		16	3·37	...		50	22·5	R
18	6·7		16	3·37	...		50	23·5	R
20	6·7		16	3·44	...		50	21·7	R
69 *Anon.*									
Jan. 5	8·0	2	18	16·50	...	150	57	53·2	R
70 *Stone* 955.									
Nov. 20	7·0	2	18	48·68	...	150	17	34·1	M
Dec. 4	6·7		18	48·68	...		17	33·0	R
5	6·7		18	48·65	...		17	35·5	R
6	6·7		18	48·63	...		17	34·0	R
7	6·7		18	48·69	...		17	34·0	R
71 *Anon.*									
Jan. 1	7·5	2	19	52·34	...	134	51	28·1	R
2	7·5		19	52·19	...		51	27·6	R
72 73 *Ceti* ζ^2									
Dec. 31	...	2	21	56·29	...	82	3	52·4	R
73 *Anon.*									
Jan. 17	7·0	2	22	8·53	...	131	53	37·3	M
20	...		22	8·64	...		53	38·9	M
Nov. 27	7·0		22	8·55	...		53	35·9	M
Dec. 17	7·0		22	8·25	..		53	37·2	R
74 *Anon.*									
Jan. 4	7·0	2	23	18·01	...	135	34	15·8	R
75 *Stone* 994.									
Jan. 2	7·0	2	24	31·01	...	126	27	49·7	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
76		*Stone* 1000.							
Nov. 21	...	2	25	20·70	5	154	49	23·8	M
Dec. 4	...		25	20·80	...		49	23·4	R
5	...		25	20·80	...		49	25·3	R
6	...		25	20·70	...		49	24·6	R
7	...		25	20·57	...		49	23·5	R
77		*Lacaille* 782.							
Jan. 5	6·5	2	26	46·94	...	148	19	46·3	R
78		*R. P. L.* 26.							
Dec. 29	...	2	27	32·42	3	3	27	48·1	R
		R. P. L. 26.—*s.p.*							
May 5	...	2	27	29·81	2	3	27	49·3	R
79		*Anon.*							
Jan. 1	7·7	2	28	16·93	...	149	23	21·0	R
3	7·7		28	16·37	...		23	21·2	R
4	7·7		28	16·58	...		23	19·8	R
80		77 *Ceti.*							
Nov. 23	...	2	28	56·44	...	98	22	16·8	M
27	...		28	56·28	...		22	16·7	M
Dec. 17	...		28	55·99	...		22	15·7	R
18	...		28	56·02	...		22	15·9	R
20	...		28	56·08	...		22	15·3	R
81		*Anon.*							
Jan. 17	7·0	2	33	12·18	...	137	9	14·7	M
18	...		33	12·02	6		9	12·7	M
19	...		33	12·21	...		9	14·5	M
20	...		33	11·98	...		9	15·1	M
22	...		33	12·43	...		9	15·7	M
82		86 *Ceti γ—2nd.*							
Dec. 27	...	2	37	14·25	...	87	15	29·2	R
28	...		37	14·28	...		15	28·8	R

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
83		*Taylor* 916.							
Jan. 3	...	2	37	26·80	...	128	53	2·0	R
4	...		37	27·02	...		53	0·6	R
5	...		37	27·20	...		53	0·3	R
8	...		37	27·18	6		53	4·2	M
9	...		37	27·09	6		53	1·8	M
84		*Anon.*							
Jan. 2	7·7	2	37	31·16	...	136	6	9·6	R
85		*Taylor* 926.							
Nov. 27	6·7	2	39	2·48	...	115	59	34·0	M
Dec. 4	6·7		39	2·41	...		59	32·9	R
5	6·7		39	2·39	...		59	33·2	R
6	6·7		39	2·28	...		59	32·7	R
7	6·7		39	2·29	...		59	30·5	R
86		*Stone* 1144.							
Dec. 17	7·0	2	42	14·98	...	131	27	2·4	R
18	7·0		42	14·99	...		27	2·6	R
20	7·0		42	15·11	...		27	1·3	R
22	7·0		42	15·14	...		27	0·7	R
25	7·0		42	14·97	...		27	2·9	R
87		*Anon.*							
Jan. 2	7·7	2	42	49·02	...	149	53	8·7	R
88		*Anon.*							
Jan. 17	7·5	2	43	47·31	...	138	24	5·4	M
19	...		43	47·60	...		24	5·7	M
20	7·5		43	47·66	...		24	2·3	M
22	...		43	47·91	5		24	6·8	M
24	...		43	47·99	4		24	7·3	M
89		43 *Arietis σ*							
Dec. 6	...	2	45	2·04	...	75	24	3·1	R
7	...		45	1·90	...		24	2·8	R
8	...		45	1·87	4		24	1·4	R
11	...		45	1·92	...		24	1·5	R
28	...		45	2·06	...		24	2·2	R
29	...		45	2·01	...		24	2·1	R
31	...		45	1·89	...		24	0·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
90			*Anon.*						
Jan. 5	7·5	2	46	1·11	...	132	42	36·0	R
9	...		46	1·20	5		42	37·5	M
11	...		46	1·37	5		42	37·4	M
15	...		46	1·16	...		42	38·2	M
16	...		46	1·28	...		42	37·7	M
91			*Stone* 1170.						
Nov. 27	6·7	2	46	38·45	...	131	26	45·2	M
Dec. 5	6·7		46	38·60	...		26	45·3	R
17	6·7		46	38·46	...		26	45·9	R
18	6·7		46	38·46	...		26	46·1	R
20	6·7		46	38·29	...		26	41·7	R
92			*Anon.*						
Jan. 3	7·5	2	47	2·20	...	133	18	51·6	R
4	7·5		47	2·41	...		18	49·9	R
93			*Stone* 1192.						
Dec. 7	7·0	2	49	36·26	...	135	5	3·4	R
11	7·0		49	36·30	...		5	3·0	R
25	7·0		49	36·29	5		5	2·3	R
26	7·0		49	36·40	4		5	2·5	R
28	7·0		49	36·58	...		5	2·6	R
94			*Stone* 1208.						
Jan. 15	...	2	50	58·96	...	146	21	22·1	M
18	...		50	59·06	...		21	25·4	M
19	...		50	58·88	...		21	22·0	M
20	...		50	59·08	...		21	24·4	M
95			*Stone* 1212.						
Dec. 5	7·0	2	51	42·09	...	141	44	1·0	R
6	7·0		51	42·00	...		44	2·4	R
22	7·0		51	42·23	...		44	2·6	R
31	7·0		51	42·25	...		44	3·0	M
96			*Stone* 1223.						
Dec. 29	...	2	52	28·65	5	154	28	45·5	R
97			*Taylor* 1024.						
Jan. 1	7·0	2	55	47·36	...	132	20	19·0	R
2	7·0		55	47·20	...		20	18·7	R
5	7·0		55	46·96	4		20	17·9	R
98			*Taylor* 1027.						
Nov. 27	...	2	56	34·86	...	118	32	29·1	M
30	...		56	34·79	...		32	26·6	M
Dec. 7	...		56	34·77	...		32	25·5	R
18	...		56	34·57	...		32	24·6	R
20	...		56	34·71	...		32	24·7	R
99			*Anon.*						
Jan. 18	...	2	57	42·21	6	132	17	53·9	M
19	7·5		57	42·02	...		17	54·1	M
20	7·5		57	41·95	...		17	53·7	M
22	...		57	42·43	...		17	54·9	M
100			*Stone* 1263.						
Dec. 11	6·7	2	58	55·53	...	137	26	3·0	R
17	6·7		58	55·50	6		26	4·2	R
22	6·7		58	55·84	...		26	2·6	R
25	6·7		58	55·67	...		26	2·5	R
26	6·7		58	55·66	...		26	2·1	R
101			*Stone* 1264.						
Jan. 1	7·0	2	59	13·98	6	134	30	42·3	R
3	7·0		59	13·84	...		30	41·8	R
15	7·0		59	13·67	...		30	42·7	M
16	7·0		59	13·98	4		30	42·1	M
102			*Taylor* 1042.						
Jan. 2	...	2	59	43·54	...	134	21	22·2	R
4	...		59	43·56	...		21	20·2	R
9	...		59	43·59	5		21	21·3	M
11	...		59	43·51	...		21	21·7	M
12	...		59	43·49	...		21	21·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
103			*R. P. L.* 33.						
Dec. 7	...	3	4	48·33	3	5	30	25·0	R
20	...		4	49·43	3		30	24·0	R
104			57 *Arietis* δ						
Dec. 4	...	3	4	56·31	...	70	42	59·2	R
5	...		4	56·30	...		42	59·5	R
17	...		4	56·29	...		42	59·4	R
18	...		4	56·35	...		42	59·5	R
25	...		4	56·33	...		42	59·4	R
26	...		4	56·31	...		42	59·2	R
31	...		4	56·32	...		42	58·8	M
105			*Stone* 1342.						
Jan. 1	7·0	3	9	50·85	...	130	41	31·9	R
2	7·0		9	50·72	...		41	31·5	R
106			*Anon.*						
Jan. 3	8·0	3	12	16·99	...	126	8	38·7	R
4	8·0		12	17·30	...		8	37·0	R
12	8·0		12	17·40	...		8	37·7	M
107			33 *Persei* α						
Jan. 19	...	3	15	58·29	...	40	33	23·8	M
20	...		15	58·22	...		33	24·1	M
22	...		15	58·35	...		33	22·7	M
108			1 *Tauri* o, *Var.* 5.						
Jan. 5	...	3	18	31·09	...	81	22	59·6	R
24	...		18	31·07	...		22	59·9	M
31	...		18	30·92	...		23	0·8	M
Feb. 1	...		18	31·07	...		23	0·0	R
Dec. 28	...		18	31·13	...		23	1·9	R
29	...		18	31·07	...		23	2·1	R
109			*Anon.*						
Jan. 4	8·0	3	18	35·56	...	134	32	53·5	R
8	...		18	35·50	...		32	57·3	M
Jan. 11	...	3	18	35·91	3	134	32	55·9	M
12	8·0		18	35·73	...		32	54·0	M
18	8·0		18	35·57	6		32	56·0	M
110			*Stone* 1414.						
Jan. 1	7·0	3	19	17·21	...	130	29	29·7	R
2	7·0		19	17·12	...		29	29·4	R
3	7·0		19	17·02	...		29	28·8	R
111			*Anon.*						
Jan. 12	...	3	26	30·32	...	135	8	1·7	M
15	7·7		26	30·25	...		8	3·9	M
16	7·7		26	30·19	...		8	1·1	M
112			18 *Eridani* ε						
Jan. 4	...	3	27	25·09	...	99	51	19·1	R
5	...		27	25·10	...		51	19·3	R
8	...		27	25·14	...		51	20·9	M
9	...		27	25·12	..		51	19·4	M
17	...		27	25·24	...		51	20·6	M
18	...		27	25·20	...		51	20·9	M
113			*R. P. L.* 34.						
Jan. 2	...	3	28	19·86	3	3	43	28·7	R
3	...		28	20·11	3		43	27·5	R
Dec. 28	...		28	19·15	3		43	28·9	R
29	...		28	18·63	3		43	30·7	R
114			*Stone* 1522.						
Jan. 1	7·0	3	34	39·77	...	136	37	23·0	R
2	7·0		34	39·65	...		37	22·1	R
115			*Stone* 1526.						
Jan. 3	8·0	3	35	9·17	...	126	19	10·3	R
4	8·0		35	9·23	...		19	8·7	R
5	9·0		35	9·33	...		19	8·3	R
8	...		35	9·42	5		19	12·7	M
9	...		35	9·08	5		19	11·7	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
116	25 *Tauri η, Alcyone.*								
Jan. 1	...	3	40	31·86	...	66	15	28·1	R
2	...		40	31·82	...		15	28·3	R
4	...		40	31·79	...		15	27·1	R
Dec. 31	...		40	31·75	...		15	27·5	M
117	*Anon.*								
Jan. 12	...	3	44	17·82	...	136	26	45·3	M
18	8·5		44	17·93	...		26	48·2	M
19	...		44	17·83	...		26	45·4	M
20	8·0		44	18·08	...		26	49·2	M
118	*Anon.*								
Jan. 3	9·0	3	49	49·24	...	136	22	57·5	R
4	...		49	49·29	...		22	55·7	R
5	9·0		49	49·41	...		22	55·6	R
12	9·0		49	49·62	...		22	57·5	M
15	9·0		49	49·45	...		22	54·0	M
119	37 *Tauri* A^1.								
Jan. 3	...	3	57	46·64	...	68	14	19·9	R
4	...		57	46·68	...		14	18·1	R
8	...		57	46·69	...		14	21·5	M
9	...		57	46·70	..		14	20·7	M
11	...		57	46·73	...		14	20·7	M
12	...		57	46·69	...		14	19·4	M
15	...		57	46·83	...		14	19·5	M
16	...		57	46·72	...		14	21·0	M
17	...		57	46·65	...		14	22·3	M
25	...		57	46·67	...		14	22·7	M
26	...		57	46·74	...		14	21·8	M
27	...		57	46·64	...		14	22·2	M
29	...		57	46·71	...		14	20·4	M
30	...		57	46·65	...		14	21·1	M
31	...		57	46·85	...		14	21·2	M
Feb. 1	...		57	46·70	...		14	18·4	R
120	*R. P. L.* 35.								
Jan. 1	...	4	0	13·27	3	4	45	17·4	R
2	...		0	13·32	3		45	18·1	R
121	38 *Eridani* o^1								
Jan. 11	...	4	6	9·25	...	97	8	35·3	M
122	*a Reticuli.*								
Feb. 8	...	4	12	55·22	4	152	46	1·5	R
9	...		12	55·32	5		46	1·4	R
12	...		12	55·36	...		46	0·4	R
13	...		12	55·20	...		46	1·4	R
123	54 *Tauri γ*								
Jan. 2	...	4	13	8·11	...	74	39	22·6	R
3	...		13	8·14	...		39	21·6	R
4	...		13	8·15	...		39	20·7	R
5	...		13	8·15	...		39	20·5	R
8	...		13	8·16	...		39	22·1	M
9	...		13	8·08	...		39	22·0	M
12	...		13	8·14	...		39	21·1	M
15	...		13	8·17	...		39	22·3	M
16	...		13	8·15	...		39	21·4	M
17	...		13	8·04	...		39	22·9	M
18	...		13	8·04	...		39	23·2	M
19	...		13	8·02	...		39	23·1	M
20	...		13	8·14	...		39	22·6	M
124	*Taylor* 1553.								
Jan. 8	...	4	20	49·41	...	134	17	23·2	M
12	7·7		20	49·56	...		17	24·0	M
15	...		20	49·54	...		17	21·7	M
16	7·0		20	49·43	...		17	22·9	M
125	74 *Tauri ε*								
Jan. 1	...	4	21	47·08	...	71	4	48·7	R
18	...		21	47·10	...		4	50·1	M
126	*Taylor* 1595.								
Jan. 1	7·5	4	27	0·43	...	131	25	33·1	R
3	6·7		27	0·21	...		25	34·0	R
4	6·7		27	0·32	...		25	32·3	R
8	...		27	0·15	...		25	33·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
127	87 *Tauri* α, *Aldebaran.*								
Jan. 31	...	4	29	12·48	...	73	43	40·4	M
Feb. 1	...		29	12·47	...		43	35·6	R
2	...		29	12·48	...		43	37·3	R
3	...		29	12·49	...		43	37·9	R
5	...		29	12·48	...		43	37·6	R
6	...		29	12·55	...		43	36·4	M
7	...		29	12·31	...		43	38·2	M
8	...		29	12·45	...		43	36·4	R
128	α *Doradûs.*								
Feb. 9	...	4	31	28·17	...	145	17	13·6	R
10	...		31	28·27	...		17	14·1	R
12	...		31	28·24	...		17	12·8	R
13	...		31	28·06	...		17	12·0	R
14	...		31	28·32	...		17	13·4	R
129	*Stone* 1991.								
Jan. 2	...	4	32	31·04	...	135	22	29·8	R
3	...		32	30·97	...		22	29·5	R
4	...		32	31·07	...		22	30·2	R
8	...		32	30·99	...		22	30·8	M
130	*Anon.*								
Jan. 11	7·0	4	45	26·36	...	131	47	23·9	M
31	7·0		45	26·50	...		47	24·0	M
Feb. 2	7·0		45	26·50	...		47	22·7	R
3	7·0		45	26·58	...		47	21·9	R
5	7·0		45	26·56	...		47	22·2	R
131	3 *Aurigæ* ι								
Jan. 22	...	4	49	22·41	...	57	1	15·5	M
24	...		49	22·41	...		1	16·6	M
25	...		49	22·42	...		1	15·3	M
26	...		49	22·41	...		1	15·8	M
27	...		49	22·46	...		1	17·6	M
29	...		49	22·44	...		1	16·5	M
30	...		49	22·52	...		1	16·7	M
Feb. 7	...		49	22·37	...		1	14·3	M
8	...		49	22·43	...		1	14·5	R
132	*R. P. L.* 37.								
Jan. 4	...	4	50	27·77	3	4	11	50·6	R
8	...		50	27·55	3		11	49·6	M
9	...		50	27·83	3		11	49·1	M
12	...		50	27·80	3		11	47·9	M
15	...		50	27·83	3		11	49·5	M
16	...		50	28·03	3		11	50·6	M
17	...		50	27·79	3		11	52·0	M
18	...		50	27·85	3		11	48·5	M
19	...		50	27·39	3		11	47·5	M
20	...		50	27·75	3		11	50·6	M
	R. P. L. 37—*s. p.*								
May 7	...	4	50	27·22	3	4	11	50·0	R
12	...		50	27·69	3		11	47·5	R
133	7 *Aurigæ* ε, *Var.* 1.								
Feb. 9	...	4	53	34·14	...	46	21	4·6	R
10	...		53	34·34	...		21	4·0	R
12	...		53	34·55	...		21	3·4	R
13	...		53	34·43	...		21	4·0	R
14	...		53	34·44	...		21	2·6	R
134	*Stone* 2191.								
Jan. 11	7·5	4	56	19·66	6	131	13	20·1	M
25	...		56	19·69	5		13	17·3	M
26	...		56	19·78	...		13	19·7	M
27	7·0		56	19·77	...		13	20·9	M
29	...		56	19·75	...		13	20·8	M
135	*R. P. L.* 39.								
Jan. 15	...	5	4	14·46	3	4	26	1·0	M
16	...		4	13·60	3		26	1·4	M
17	...		4	14·03	3		26	0·5	M
18	...		4	14·13	3		26	0·1	M
20	...		4	14·11	3		26	2·5	M
22	...		4	14·27	3		26	0·3	M
25	...		4	13·76	3		26	5·2	M
27	...		4	13·92	3		26	1·9	M
30	...		4	13·93	3		26	0·7	M
31	...		4	13·90	3		26	4·0	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
	R. P. L. 39.—*s.p.*								
May 18	...	5	4	13·83	3	4	26	3·8	R
19	...		4	13·82	3		26	3·9	R
23	...		4	13·49	3		26	6·1	R
28	...		4	13·95	3		26	5·1	R
June 15	...		4	14·19	3		26	8·5	M
Aug. 8	...		4	14·45	3		26	1·6	R
9	...		4	14·23	3		26	5·1	R
136	13 *Aurigæ a, Capella.*								
Jan. 12	...	5	8	2·75	...	44	7	19·9	M
19	...		8	2·68	...		7	19·5	M
24	...		8	2·66	...		7	19·6	M
26	...		8	2·75	...		7	18·2	M
29	...		8	2·57	...		7	20·2	M
Feb. 14	...		8	2·63	...		7	19·3	R
15	...		8	2·64	...		7	19·8	R
16	...		8	2·52	...		7	19·2	R
17	...		8	2·65	...		7	20·4	R
137	19 *Orionis β, Rigel.*								
Feb. 2	...	5	8	54·83	...	98	20	16·0	R
3	...		8	54·85	...		20	14·9	R
5	...		8	54·85	...		20	15·9	R
8	...		8	54·88	...		20	16·5	R
9	...		8	54·80	...		20	17·8	R
10	...		8	54·83	...		20	15·3	R
12	...		8	54·89	...		20	16·6	R
13	...		8	54·85	...		20	16·8	R
138	112 *Tauri β*								
Jan. 12	...	5	18	53·74	..	61	29	33·5	M
15	...		18	53·76	...		29	35·5	M
16	...		18	53·82	...		29	35·7	M
17	...		18	53·82	...		29	34·8	M
139	*R. P. L.* 40.								
Jan. 15	...	5	24	38·64	3	4	51	56·5	M
16	...		24	38·05	3		51	59·6	M
18	...		24	37·47	3		51	56·7	M
	R. P. L. 40.—*s.p.*								
May 18	...	5	24	37·36	3	4	51	57·5	R
19	...		24	37·68	3		51	58·0	R
23	...		24	37·44	3		51	59·3	R
140	34 *Orionis δ, Var.* 1.								
Jan. 20	...	5	26	1·88	...	90	23	12·9	M
141	11 *Leporis a*								
Jan. 25	...	5	27	34·25	...	107	54	25·2	M
26	...		27	34·21	...		54	26·1	M
142	*R. P. L* 41.—*s.p.*								
June 1	...	5	29	13·81	3	4	44	57·1	R
7	...		29	13·96	3		44	59·2	R
Aug. 8	...		29	14·25	3		44	56·8	R
11	...		29	14·85	3		44	59·3	R
13	...		29	14·19	3		45	0·4	R
14	...		29	13·01	3		45	0·6	R
16	...		29	13·59	3		45	1·0	R
18	...		29	12·54	3		44	59·5	R
143	*R. P. L.* 42.								
Jan. 15	...	5	36	38·91	3	2	40	52·2	M
16	...		36	37·79	3		40	51·1	M
20	...		36	37·11	3		40	55·0	M
24	..		36	37·01	3		40	54·3	M
25	...		36	36·69	3		40	56·7	M
29	...		36	37·54	2		40	52·1	M
Feb. 1	...		36	39·27	3		40	50·0	R
2	...		36	39·21	3		40	51·0	R
7	...		36	38·35	3		40	52·7	M
144	53 *Orionis κ*								
Jan. 19	...	5	42	12·56	...	99	42	45·4	M
27	...		42	12·44	...		42	47·0	M
29	...		42	12·39	...		42	45·3	M
30	...		42	12·39	...		42	47·3	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
145	33 *Aurigæ* δ								
Feb. 8	...	5	49	53·50	..	35	43	34·6	R
9	...		49	53·47	...		43	34·3	R
10	...		49	53·51	...		43	34·2	R
12	...		49	53·71	...		43	32·6	R
18	...		49	53·55	...		43	32·0	R
146	*R. P. L.* 43.								
Jan. 18	...	6	0	28·63	3	3	14	15·6	M
19	...		0	28·64	3		14	15·5	M
20	...		0	28·48	3		14	17·0	M
24	...		0	28·53	3		14	15·5	M
25	...		0	28·05	3		14	18·9	M
	R. P. L. 43.—*s.p.*								
Aug. 10	...	6	0	28·06	3	3	14	15·2	R
16	...		0	27·29	3		14	13·5	R
18	...		0	27·58	3		14	13·6	R
25	...		0	28·63	3		14	13·4	R
147	7 *Geminorum* η								
Feb. 2	...	6	7	48·90	...	67	27	36·4	R
3	...		7	48·88	...		27	36·9	R
5	...		7	48·91	...		27	36·8	R
6	...		7	48·85	...		27	35·4	M
7	...		7	48·76	...		27	37·5	M
9	...		7	48·93	...		27	37·7	R
10	...		7	48·88	...		27	36·6	R
12	...		7	48·86	...		27	38·1	R
13	...		7	48·89	...		27	37·8	R
14	...		7	48·85	...		27	38·0	R
148	31 *Geminorum* ξ								
Feb. 6	...	6	38	43·28	...	76	58	45·4	M
7	...		38	43·42	...		58	48·8	M
15	...		38	43·37	...		58	45·0	R
16	...		38	43·37	...		58	46·3	R
17	...		38	43·39	...		58	45·2	R
19	...		38	43·34	...		58	45·0	R
20	...		38	43·37	...		58	47·2	R
21	...		38	43·30	...		58	46·9	R
22	...		38	43·31	...		58	46·5	R
23	...		38	43·32	...		58	44·8	R
149	51 *Cephei* (*Hev.*).								
Feb. 8	...	6	45	16·50	3	2	46	27·1	R
9	...		45	16·62	3		46	26·8	R
10	...		45	17·40	3		46	26·2	R
12	...		45	16·94	3		46	26·1	R
13	...		45	17·73	3		46	27·5	R
14	...		45	17·27	3		46	26·1	R
15	...		45	17·84	3		46	24·6	R
19	...		45	17·09	3		46	25·3	R
20	...		45	17·58	3		46	26·4	R
24	...		45	18·33	3		46	25·9	R
150	*Anon.—2nd Star.*								
Feb. 7	9·5	6	48	35·48	...	70	33	39·0	M
9	9·5		48	35·55	...		33	38·0	R
12	9·5		48	35·30	...		33	37·9	R
13	9·5		48	35·54	...		33	37·0	R
151	*W. B. N.* VI. 1448.								
Feb. 5	9·0	6	49	45·87	...	62	3	38·8	R
6	9·0		49	45·85	...		3	36·7	M
8	9·0		49	45·65	...		3	41·3	R
10	9·0		49	45·72	...		3	40·2	R
14	9·0		49	45·95	...		3	39·4	R
152	22 *Canis Majoris.*								
Feb. 9	...	6	57	3·52	...	117	46	6·6	R
10	...		57	3·57	...		46	5·7	R
12	...		57	3·58	...		46	4·3	R
13	...		57	3·55	...		46	4·7	R
14	...		57	3·59	...		46	5·4	R
153	3 *Canis Minoris* β								
Feb. 9	...	7	20	48·35	...	81	28	33·3	R
10	...		20	48·42	...		28	31·6	R
12	...		20	48·33	...		28	30·7	R
13	...		20	48·35	..		28	30·9	R
14	...		20	48·35	...		28	31·2	R
15	...		20	48·32	...		28	32·8	R
16	...		20	48·29	...		28	31·0	R
17	...		20	48·36	...		28	33·7	R
19	...		20	48·34	...		28	31·5	R
20	...		20	48·36	...		28	32·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
154			*77 Geminorum κ*						
Feb. 21	..	7	37	22·78	...	65	19	22·2	R
22	...		37	22·81	...		19	21·5	R
23	...		37	22·95	...		19	21·6	R
26	...		37	22·93	...		19	21·0	R
27	...		37	22·99	...		19	20·3	R
155			*W. B. E.* VII. 1127.						
Feb. 6	9·0	7	38	32·46	...	81	9	24·5	M
9	9·0		38	32·63	...		9	26·0	R
12	9·0		38	32·58	...		9	28·8	R
16	9·0		38	32·64	...		9	22·6	R
17	9·0		38	32·70	...		9	26·3	R
156			*ξ Argûs.*						
Feb. 14	...	7	44	22·48	...	114	33	57·6	R
15	...		44	22·45	...		33	57·6	R
16	...		44	22·49	...		33	57·9	R
17	...		44	22·49	...		33	59·6	R
19	...		44	22·55	...		33	59·3	R
20	...		44	22·47	...		33	59·8	R
21	...		44	22·51	...		33	59·2	R
22	..		44	22·49	...		33	59·2	R
23	...		44	22·47	...		34	1·3	R
24	...		44	22·51	...		33	59·1	R
157			*R. P. L.* 48—*s.p.*						
Aug. 4	...	7	46	45·38	3	8	58	4·3	R
13	...		46	45·11	3		58	3·5	R
14	...		46	44·28	3		58	3·2	R
Sep. 4	...		46	44·31	3		58	3·5	M
14	...		46	45·19	3		58	4·2	M
158			*Lalande* 16364.						
Feb. 6	8·0	8	15	22·51	...	76	0	16·9	M
7	8·0		15	22·48	...		0	18·8	M
8	8·0		15	22·58	..		0	18·7	R
9	8·0		15	22·46	...		0	19·4	R
10	8·0		15	22·36	...		0	17·2	R
159			*R. P. L.* 53.—*s.p.*						
July 28	...	8	20	38·26	3	4	32	8·5	R
Aug. 11	...		20	38·49	3		32	7·7	R
13	...		20	38·26	3		32	9·4	R
Oct. 24	...		20	38·04	3		32	8·7	R
25	...		20	38·06	3		32	9·3	R
160			*Lalande* 16797.						
Feb. 7	8·0	8	27	6·59	...	76	3	5·7	M
8	8·0		27	6·60	...		3	3·8	R
9	8·0		27	6·52	...		3	2·9	R
10	8·0		27	6·63	...		3	2·8	R
12	8·0		27	6·73	...		3	2·4	R
161			*R. P. L.* 55—*s.p.*						
Sep. 14	...	8	31	32·19	3	5	40	55·5	M
Oct. 18	...		31	31·69	3		40	55·3	R
22	...		31	31·87	3		40	56·3	R
162			43 *Cancri γ*						
Feb. 17	...	8	36	30·78	...	68	6	42·7	R
19	...		36	30·73	...		6	42·2	R
20	...		36	30·73	...		6	42·9	R
21	...		36	30·77	...		6	42·2	R
22	...		36	30·79	...		6	41·7	R
23	...		36	30·79	...		6	43·3	R
24	...		36	30·74	...		6	41·9	R
26	...		36	30·77	...		6	43·5	R
27	...		36	30·77	...		6	42·0	R
28	...		36	30·85	...		6	41·0	R
163			*R. P. L.* 60—*s.p.*						
Sep. 28	...	8	50	44·02	3	5	21	10·9	M
164			*W. B. E.* IX. 78.						
Feb. 13	9·0	9	6	31·24	...	77	16	15·2	R
14	9·0		6	31·23	...		16	15·8	R
15	9·0		6	31·16	...		16	16·3	R
16	9·0		6	31·32	...		16	15·4	R
17	9·0		6	31·37	...		16	16·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
165		*ι Argûs.*							
Feb. 23	...	9	13	57·46	...	148	47	4·1	R
26	...		13	57·37	...		47	6·3	R
27	...		13	57·34	...		47	6·5	R
28	...		13	57·32	...		47	4·7	R
Mar. 1	...		13	57·42	...		47	5·3	R
Apl. 3	...		13	57·62	...		47	6·9	M
4	...		13	57·54	...		47	8·9	M
5	...		13	57·43	...		47	7·7	M
6	...		13	57·64	...		47	8·1	M
7	...		13	57·48	...		47	7·2	M
166		*Lalande* 18405.							
Feb. 13	8·0	9	14	35·45	...	77	32	42·6	R
15	8·0		14	35·33	...		32	43·5	R
17	8·0		14	35·56	...		32	44·5	R
19	8·0		14	35·47	...		32	44·9	R
21	8·0		14	35·49	...		32	44·3	R
167		*W. B. E.* IX. 270.							
Feb. 14	9·0	9	14	55·62	...	77	15	40·4	R
16	9·0		14	55·44	...		15	40·3	R
20	9·0		14	55·34	...		15	40·5	R
22	9·0		14	55·29	...		15	40·8	R
24	9·0		14	55·41	...		15	39·4	R
168		*κ Argûs.*							
Feb. 19	...	9	18	29·18	...	144	30	40·4	R
20	...		18	29·18	...		30	41·6	R
21	...		18	29·18	...		30	41·5	R
22	...		18	29·19	...		30	41·4	R
23	...		18	29·23	..		30	39·8	R
169		*R. P. L.* 62.—*s.p.*							
Sep. 14	...	9	21	24·92	3	2	21	31·7	M
15	...		21	23·97	3		21	32·7	M
170		*Lalande* 19559.							
Feb. 19	7·0	9	53	48·59	...	109	47	50·6	R
20	7·0		53	48·61	...		47	50·7	R
21	7·0		53	48·60	...		47	51·3	R
22	7·0		53	48·58	...		47	51·1	R
23	7·0		53	48·61	...		47	51·0	R
171		*Lalande* 19846.							
Feb. 19	8·0	10	5	40·75	...	107	3	28·3	R
20	8·0		5	40·87	...		3	29·4	R
21	8·0		5	40·86	...		3	30·3	R
22	8·0		5	40·84	...		3	29·9	R
23	8·0		5	40·92	...		3	32·6	R
172		33 *Ursæ Majoris* λ							
Feb. 24	...	10	10	1·86	...	46	30	6·0	R
173		*W. B. E.* X. 228.							
Feb. 19	9·0	10	15	3·04	...	104	0	29·3	R
21	9·0		15	2·99	...		0	30·1	R
23	9·0		15	2·97	...		0	29·8	R
26	9·0		15	3·12	...		0	29·2	R
28	9·0		15	3·02	...		0	28·4	R
174		*Lalande* 20089.							
Feb. 20	7·5	10	15	10·63	...	104	54	4·6	R
22	7·5		15	10·54	...		54	4·6	R
24	7·5		15	10·54	...		54	4·0	R
27	7·5		15	10·45	...		54	3·2	R
Mar. 1	7·5		15	10·52	...		54	4·8	R
175		*Anon.*							
Apl. 10	9·7	10	16	1·97	...	84	34	4·8	M
11	9·7		16	1·94	...		34	3·1	M
12	9·7		16	1·95	...		34	1·6	M
13	9·7		16	2·03	...		34	1·4	M
14	9·7		16	2·14	...		34	1·9	M

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176 *Lalande* 20205.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Apl. 6	8·0	10	19	29·37	...	8	50	7·3	M
7	...		19	29·29	...		50	9·2	M
9	8·0		19	29·48	...		50	6·8	M
16	8·0		19	29·28	...		50	8·7	M
18	...		19	29·43	...		50	7·1	M

177 *Lalande* 20521.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Feb. 19	6·7	10	30	28·02	...	99	58	33·4	R
21	6·7		30	28·07	...		58	34·1	R
23	6·7		30	28·05	...		58	34·2	R
26	6·7		30	28·07	...		58	34·1	R
28	6·7		30	28·08	...		58	33·8	R

178 *Yarnall* 4420.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Feb. 20	7·0	10	30	42·68	...	101	36	8·5	R
22	7·0		30	42·55	...		36	9·3	R
24	7·0		30	42·55	...		36	8·4	R
27	7·0		30	42·84	...		36	8·4	R
Mar. 1	7·0		30	42·90	...		36	8·4	R

179 58 *Leonis d.*

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Feb. 21	...	10	54	31·03	...	85	45	17·1	R
22	...		54	31·03	...		45	17·1	R
24	...		54	31·01	...		45	16·4	R
26	...		54	31·05	...		45	15·9	R
27	...		54	31·06	...		45	15·2	R
28	...		54	31·00	...		45	15·0	R
Mar. 1	...		54	31·02	...		45	15·5	R
Apl. 3	...		54	31·00	...		45	16·5	M
4	...		54	31·12	...		45	17·3	M
5	...		54	31·11	...		45	16·5	M

180 70 *Leonis θ*

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Feb. 26	...	11	8	5·91	...	73	55	52·2	R
27	...		8	5·97	...		55	52·6	R
28	...		8	6·02	...		55	52·0	R
Mar. 1	...		8	5·97	...		55	50·8	R
Apl. 3	...		8	5·99	...		55	52·4	M

181 84 *Leonis τ*

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Feb. 26	...	11	21	55·23	...	86	29	57·7	R
27	...		21	55·26	...		29	57·7	R
28	...		21	55·27	...		29	57·3	R
Mar. 1	...		21	55·18	...		29	57·7	R
Apl. 3	...		21	55·16	...		29	58·3	M
4	...		21	55·20	...		29	58·7	M
5	...		21	55·21	...		29	58·0	M
6	...		21	55·17	...		30	0·0	M
7	...		21	55·18	...		29	59·8	M
14	...		21	55·26	..		29	59·8	M

182 *Anon.*

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Apl. 9	9·5	11	22	33·40	...	92	38	7·3	M
10	9·5		22	33·32	...		38	7·9	M
11	9·5		22	33·44	...		38	6·4	M
12	9·5		22	33·37	...		38	7·2	M
13	9·5		22	33·36	...		38	8·2	M

183 *R. P. L.* 82.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Feb. 28	...	11	26	39·66	3	3	44	15·9	R
Apl. 3	...		26	39·09	3		44	13·1	M
4	...		26	39·01	3		44	15·5	M
5	...		26	39·21	3		44	14·3	M
6	...		26	39·15	3		44	15·8	M
7	...		26	38·88	3		44	16·3	M
9	...		26	39·83	3		44	15·7	M
16	...		26	38·64	3		44	16·7	M
17	...		26	38·96	3		44	15·3	M
21	...		26	38·08	3		44	15·6	M

R. P. L. 82,—*s.p.*

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Oct. 19	...	11	26	38·71	3	3	44	18·0	R
23	...		26	38·71	3		44	16·7	R
25	...		26	38·39	3		44	15·6	R
Nov. 9	...		26	39·39	3		44	15·7	M
12	...		26	38·20	3		44	15·1	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
184	*R. P. L.* 87.—*s.p.*								
Nov. 13	...	11	53	32·11	3	2	21	15·2	M
14	...		53	32·22	2		21	16·6	M
Dec. 6	...		53	29·48	3		21	14·1	R
7	...		53	29·93	3		21	14·6	R
185	8 *Virginis* π								
Apl. 3	...	11	54	52·47	...	82	43	58·5	M
4	...		54	52·41	...		44	0·7	M
5	...		54	52·49	...		43	59·8	M
6	...		54	52·53	...		44	1·8	M
7	...		54	52·59	...		43	59·9	M
9	...		54	52·69	...		43	59·6	M
10	...		54	52·72	...		43	59·6	M
11	...		54	52·68	...		43	59·5	M
12	...		54	52·65	...		43	59·8	M
13	...		54	52·66	...		44	1·3	M
186	*R. P. L.* 97.—*s.p.*								
Nov. 12	...	12	37	35·28	3	5	42	53·3	M
Dec. 6	...		37	33·56	3		42	51·8	R
7	...		37	34·10	3		42	51·0	R
187	*R. P. L.* 98.—*s.p.*								
Nov. 9	...	12	48	8·00	3	5	56	45·3	M
Dec. 29	...		48	7·96	3		56	44·8	R
188	*R. P. L.* 99.—*s.p.*								
Dec. 20	...	12	48	16·16	3	5	57	4·4	R
22	...		48	16·23	3		57	4·8	R
189	77 *Ursæ Majoris* ε								
Apl. 3	...	12	48	52·48	...	33	24	17·1	M
4	...		48	52·51	...		24	17·3	M
5	...		48	52·52	...		24	18·5	M
6	...		48	52·86	...		24	17·0	M
7	...		48	52·57	...		24	18·7	M
190	43 *Virginis* δ								
Apl. 9	...	12	49	42·57	...	85	57	56·7	M
10	...		49	42·68	...		57	57·6	M
11	...		49	42·66	...		57	58·4	M
12	...		49	42·71	...		57	57·6	M
13	...		49	42·66	...		57	57·5	M
14	...		49	42·69	...		57	56·9	M
16	...		49	42·62	...		57	57·3	M
17	...		49	42·60	...		57	57·8	M
18	...		49	42·64	...		57	58·7	M
19	...		49	42·64	...		57	57·7	M
20	...		49	42·68	...		57	56·4	M
21	...		49	42·66	...		57	57·6	M
23	...		49	42·65	...		57	56·0	M
24	...		49	42·58	...		57	55·2	M
25	...		49	42·67	...		57	56·9	M
26	...		49	42·58	...		57	55·1	M
28	...		49	42·55	...		57	58·3	M
30	...		49	42·64	...		57	57·6	M
May 1	...		49	42·64	...		57	57·0	R
2	...		49	42·63	...		57	58·1	R
191	47 *Virginis* ε								
Apl. 9	...	12	56	21·11	...	78	24	42·1	M
10	...		56	21·05	...		24	45·2	M
11	...		56	21·14	...		24	43·8	M
12	...		56	21·12	...		24	42·4	M
13	...		56	21·15	...		24	43·8	M
14	...		56	21·05	...		24	42·8	M
16	...		56	21·13	...		24	43·3	M
17	...		56	21·07	...		24	43·4	M
18	...		56	21·11	...		24	44·0	M
19	...		56	21·01	...		24	43·9	M
21	...		56	21·13	...		24	45·0	M
23	...		56	21·15	...		24	41·6	M
24	...		56	21·16	...		24	41·9	M
25	...		56	21·08	...		24	43·6	M
26	...		56	21·18	...		24	44·2	M
28	...		56	21·29	...		24	43·8	M
30	...		56	21·32	...		24	43·2	M
May 1	...		56	21·17	...		24	40·6	R
2	...		56	21·16	...		24	41·3	R
3	...		56	21·25	...		24	40·9	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
May 4	...	12	56	21·20	...	78	24	41·0	R
5	...		56	21·21	...		24	41·2	R
7	...		56	21·28	...		24	41·5	R
8	...		56	21·26	...		24	41·7	R
9	...		56	21·28	...		24	42·1	R
10	...		56	21·22	...		24	38·7	R
11	...		56	21·22	...		24	38·6	R
12	...		56	21·23	...		24	39·5	R
14	...		56	21·19	...		24	40·7	R
15	...		56	21·08	...		24	40·0	R
192	*R. P. L.* 100—*s.p.*								
Jan. 2	...	13	0	26·39	3	3	29	7·4	R
Nov. 13	...		0	26·89	3		29	5·8	M
Dec. 20	...		0	26·43	3		29	9·2	R
28	...		0	27·35	3		29	7·0	R
193	51 *Virginis θ*								
May 3	...	13	3	53·52	...	94	54	50·3	R
4	...		3	53·50	...		54	48·1	R
5	...		3	53·57	...		54	47·9	R
7	...		3	53·55	...		54	48·9	R
8	...		3	53·52	...		54	49·0	R
9	...		3	53·47	...		54	49·5	R
10	...		3	53·51	...		54	48·2	R
11	...		3	53·63	...		54	48·7	R
12	...		3	53·55	...		54	48·8	R
14	...		3	53·55	...		54	48·8	R
15	...		3	53·40	...		54	48·9	R
194	*R. P. L.* 101.—*s.p.*								
Nov. 12	...	13	7	6·31	3	1	43	20·6	M
195	79 *Virginis ζ*								
Apl. 16	...	13	28	44·04	..	89	59	53·4	M
17	...		28	44·06	...		59	51·3	M
18	...		28	44·04	...		59	53·1	M
19	...		28	44·03	...		59	53·0	M
20	...		28	44·04	...		59	51·8	M
21	...		28	44·11	...		59	53·4	M
23	...		28	44·08	...		59	50·8	M
24	...		28	44·07	...		59	51·1	M
25	...		28	44·15	...		59	52·4	M
26	...		28	44·14	...		59	52·0	M

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
196	4 *Bootis τ*								
Apl. 9	...	13	41	42·20	...	71	57	31·6	M
11	...		41	42·08	...		57	32·2	M
12	...		41	42·08	...		57	32·2	M
13	...		41	42·11	...		57	31·5	M
14	...		41	42·08	...		57	30·3	M
16	...		41	42·04	...		57	32·2	M
17	...		41	42·12	...		57	31·0	M
18	...		41	42·03	...		57	30·6	M
19	...		41	42·14	...		57	30·5	M
20	..		41	42·12	...		57	30·3	M
197	85 *Ursæ Majoris η*								
May 3	...	13	42	55·78	...	40	6	7·1	R
4	...		42	55·79	...		6	7·4	R
5	...		42	55·68	...		6	5·9	R
7	...		42	55·62	...		6	7·0	R
8	...		42	55·70	...		6	6·3	R
9	...		42	55·71	...		6	6·5	R
10	...		42	55·71	...		6	4·6	R
11	...		42	55·61	...		6	6·2	R
12	...		42	55·65	...		6	6·2	R
14	...		42	55·66	...		6	6·9	R
198	8 *Bootis η*								
Apl. 20	...	13	49	6·70	...	71	0	57·2	M
21	...		49	6·66	...		0	57·1	M
23	...		49	6·69	...		0	55·4	M
24	...		49	6·76	...		0	56·3	M
25	...		49	6·68	...		0	57·1	M
26	...		49	6·70	...		0	58·7	M
28	...		49	6·81	...		0	58·8	M
30	...		49	6·69	...		0	56·2	M
May 1	...		49	6·82	...		0	55·9	R
2	...		49	6·83	...		0	56·1	R
199	*Anon.*								
Apl. 11	8·5	13	50	24·49	...	142	5	16·9	M
12	8·5		50	24·52	...		5	19·9	M
13	8·5		50	24·54	...		5	20·4	M
14	8·5		50	24·56	...		5	20·3	M
16	8·5		50	24·46	...		5	20·6	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
200 *R. P. L.* 108.—*s.p.*									
Dec. 28	...	14	1	29·77	3	3	40	55·6	R
201 *Taylor* 6609									
Apl. 25	...	14	5	40·88	...	131	5	32·9	M
26	...		5	40·72	...		5	34·2	M
30	...		5	40·71	...		5	32·9	M
May 1	...		5	40·93	...		5	31·5	R
2	...		5	40·93	...		5	32·0	R
202 *Stone* 7816.—*2nd.*									
Apl. 26	...	14	12	49·00	...	132	31	12·4	M
30	...		12	48·77	...		31	13·7	M
May 1	...		12	48·99	...		31	12·9	R
2	...		12	49·00	...		31	13·5	R
3	...		12	49·02	...		31	13·3	R
203 *Anon.*									
Apl. 23	...	14	13	8·18	...	151	0	41·2	M
204 *Stone* 7826.									
Apl. 20	...	14	14	9·26	...	156	6	31·2	M
21	7·0		14	9·45	...		6	32·4	M
205 *Anon.*									
May 2	7·0	14	21	19·48	...	150	19	33·0	R
4	7·0		21	19·59	...		19	32·5	R
7	7·0		21	19·75	...		19	32·0	R
206 *Anon.*									
Apl. 21	8·7	14	21	30·59	...	150	17	36·0	M
24	8·7		21	30·46	...		17	33·6	M
May 3	9·0		21	30·34	...		17	32·5	R
5	9·0		21	30·44	...		17	31·3	R
9	9·0		21	30·40	...		17	32·8	R
207 *Stone* 7897.									
Apl. 19	...	14	23	7·93	...	129	57	14·7	M
20	...		23	7·93	...		57	14·3	M
208 *Stone* 7947.									
Apl. 20	...	14	29	31·34	...	157	41	41·2	M
21	7·0		29	31·29	...		41	42·0	M
209 *Taylor* 6811.									
Apl. 25	7·0	14	30	6·62	...	132	36	6·2	M
26	7·0		30	6·65	...		36	6·9	M
30	...		30	6·60	...		36	5·1	M
May 1	7·0		30	6·56	...		36	5·0	R
2	7·0		30	6·55	...		36	4·0	R
210 *Stone* 7969.									
May 4	7·5	14	32	17·08	...	129	3	27·4	R
10	7·5		32	17·11	...		3	26·8	R
211 *Anon.*									
May 5	7·0	14	35	28·51	...	151	25	42·9	R
212 *Anon.*									
Apl. 19	...	14	38	46·84	...	128	6	32·4	M
213 *Taylor* 6891.									
Apl. 25	7·0	14	39	56·14	...	133	3	53·0	M
26	7·0		39	56·22	...		3	49·7	M
30	...		39	55·92	...		3	50·6	M
May 1	7·0		39	56·07	...		3	49·6	R
2	7·0		39	56·03	...		3	51·0	R
214 *Anon.*									
May 8	7·5	14	42	47·95	...	126	54	24·0	R
9	7·5		42	47·95	...		54	24·2	R
10	7·5		42	48·05	...		54	24·5	R
11	7·5		42	48·05	...		54	24·2	R
12	7·5		42	48·20	...		54	24·9	R
215 *Taylor* 6925.									
Apl. 28	...	14	45	30·81	...	127	19	12·8	M
30	...		45	30·66	...		19	14·3	M
May 1	...		45	30·67	...		19	13·8	R
2	...		45	30·66	...		19	14·8	R
3	...		45	30·80	...		19	14·4	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. *h.*	*m.*	*s.*	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
216 *Anon.*									
Apl. 19	...	14	47	5·45	...	131	33	52·9	M
21	7·5		47	5·53	...		33	53·3	M
24	7·5		47	5·47	...		33	52·6	M
217 *Anon.*									
Apl. 20	...	14	48	10·24	...	126	41	5·0	M
25	7·5		48	10·31	...		41	5·8	M
26	7·5		48	10·13	...		41	6·2	M
May 4	7·5		48	10·34	...		41	2·7	R
218 7 *Ursæ Minoris β, Var.* 1.									
May 9	...	14	51	3·44	...	15	21	58·7	R
10	...		51	3·42	...		21	58·6	R
11	...		51	3·50	...		21	58·7	R
12	...		51	3·29	...		21	56·7	R
14	...		51	3·42	...		21	56·2	R
219 *Stone* 8165.									
May 2	7·0	14	52	35·28	...	129	19	46·8	R
3	7·0		52	35·24	...		19	45·8	R
4	7·0		52	35·16	...		19	45·7	R
7	7·0		52	35·26	...		19	44·8	R
8	7·0		52	35·15	...		19	44·7	R
220 *R. P. L.* 110.									
May 5	...	14	52	52·85	3	3	34	3·5	R
R. P. L. 110—*s.p.*									
Jan. 12	...	14	52	52·78	3	3	34	7·9	M
16	...		52	54·46	4		34	7·1	M
17	...		52	54·27	3		34	4·5	M
221 *Anon.*									
Apl. 19	...	14	53	29·66	...	131	49	19·8	M
20	...		53	29·61	...		49	18·0	M
21	8·0		53	29·58	...		49	19·5	M
222 *Taylor* 7001.									
Apl. 25	...	14	56	15·36	...	125	28	53·9	M
26	...		56	15·55	...		28	54·9	M
28	...		56	15·60	...		28	53·3	M
30	...		56	15·44	...		28	54·0	M
May 1	...		56	15·66	...		28	55·1	R
223 *Taylor* 7027.									
Apl. 19	...	14	58	53·17	...	125	48	33·1	M
224 27 *Libræ β*									
Apl. 30	...	15	10	42·72	...	98	57	4·0	M
May 1	...		10	42·67	...		57	0·8	R
2	...		10	42·65	...		57	1·5	R
3	...		10	42·60	...		57	1·5	R
5	...		10	42·69	...		56	59·8	R
7	...		10	42·69	...		56	58·0	R
8	...		10	42·69	...		57	0·3	R
9	...		10	42·67	...		57	0·7	R
10	...		10	42·75	...		57	0·5	R
11	...		10	42·67	...		56	58·7	R
225 *R. P. L.* 114—*s.p.*									
Jan. 15	...	15	15	21·11	3	2	19	12·0	M
16	...		15	18·75	3		19	6·9	M
17	...		15	19·82	3		19	7·2	M
226 *Anon.*									
May 23	9·0	15	37	31·17	...	155	8	44·9	R
29	9·0		37	31·02	...		8	46·4	R
227 24 *Serpentis α*									
May 12	...	15	38	30·39	...	83	12	17·9	R
14	...		38	30·41	...		12	18·5	R
15	...		38	30·39	...		12	18·8	R
18	...		38	30·26	...		12	19·2	R
19	...		38	30·34	...		12	18·1	R
21	...		38	30·37	...		12	18·8	R
22	...		38	30·28	...		12	19·4	R
24	...		38	30·28	...		12	19·5	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
May 25	...	15	38	30·29	...	83	12	19·7	R
28	...		38	30·28	...		12	18·8	R
31	...		38	30·31	...		12	18·7	R
June 1	...		38	30·34	...		12	18·9	R
2	...		38	30·30	...		12	17·5	R
8	...		38	30·29	...		12	18·7	M
228		*37 Serpentis* ε							
May 15	...	15	44	59·17	...	85	10	6·7	R
18	...		44	59·02	...		10	8·2	R
19	...		44	59·01	...		10	7·9	R
21	...		44	59·04	...		10	8·1	R
22	...		44	59·00	...		10	7·6	R
23	...		44	59·01	...		10	7·6	R
24	...		44	59·01	...		10	8·0	R
25	...		44	59·04	...		10	8·8	R
28	...		44	59·05	...		10	7·9	R
29	...		44	58·99	...		10	6·6	R
229		*Anon.*							
June 2	...	15	46	27·92	...	130	46	29·0	R
8	...		46	27·85	4		46	30·0	M
20	...		46	27·79	...		46	29·3	M
26	...		46	28·05	...		46	31·6	M
230		*R. P. L.* 116.							
May 5	...	16	0	47·61	3	4	21	53·3	R
7	...		0	48·26	3		21	53·6	R
8	...		0	47·97	3		21	53·2	R
9	...		0	47·70	3		21	53·2	R
12	...		0	47·35	3		21	53·9	R
		R. P. L. 116—*s.p.*							
Jan. 18	...	16	0	47·16	3	4	21	53·3	M
20	...		0	47·07	3		21	54·9	M
22	...		0	47·40	3		21	56·9	M
27	...		0	47·08	3		21	53·4	M
29	...		0	47·32	3		21	55·8	M
30	...		0	47·26	3		21	54·0	M
231		*R. P. L.* 117.							
May 18	...	16	3	14·67	3	6	2	43·2	R
19	...		3	14·88	3		2	43·0	R
23	...		3	14·73	3		2	44·4	R
		R. P. L. 117—*s.p.*							
Jan. 1	...	16	3	16·67	3	6	2	44·5	R
4	...		3	15·31	3		2	44·1	R
5	...		3	15·30	3		2	42·2	R
12	...		3	15·27	3		2	41·2	M
15	...		3	14·60	3		2	46·0	M
16	...		3	14·24	3		2	43·2	M
17	...		3	14·56	3		2	37·1	M
19	...		3	14·48	3		2	43·8	M
24	...		3	14·83	3		2	40·1	M
25	...		3	14·42	3		2	41·6	M
232		*Anon.*							
May 10	7·0	16	5	1·46	...	133	46	12·6	R
14	7·0		5	1·63	...		46	11·9	R
233		*Anon.*							
May 11	8·5	16	6	5·40	...	125	29	44·8	R
12	8·5		6	5·47	...		29	45·2	R
234		*Stone* 8832.							
May 5	...	16	7	57·02	...	135	5	30·8	R
7	...		7	57·01	4		5	30·6	R
235		*Anon.*							
May 18	8·0	16	8	14·40	...	135	14	55·5	R
19	8·0		8	14·38	...		14	55·7	R
21	8·0		8	14·32	...		14	55·4	R
22	8·0		8	14·28	4		14	55·7	R
236		*Stone* 8853.							
May 8	7·0	16	10	37·37	...	124	37	29·3	R
9	7·0		10	37·48	...		37	29·4	R
10	7·0		10	37·61	...		37	29·3	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.		Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
237					19 *Ursæ Minoris.*					
May	15	...	16	14	9·98	...	18	49	41·2	R
	18	...		14	10·05	...		49	43·8	R
238					*Stone* 8892.					
May	5	6·5	16	14	44·75	...	152	51	1·7	R
	9	6·3		14	44·48	5		51	2·1	R
	10	6·3		14	44·57	...		51	1·2	R
	11	6·3		14	44·61	...		51	0·5	R
239					20 *Herculis* γ					
May	23	...	16	16	45·47	...	70	34	14·4	R
	25	...		16	45·48	...		34	16·0	R
	28	...		16	45·48	...		34	15·6	R
	29	...		16	45·53	...		34	15·0	R
	30	...		16	45·46	...		34	14·7	R
	31	...		16	45·45	...		34	15·4	R
June	1	...		16	45·48	...		34	15·7	R
	2	...		16	45·50	...		34	14·2	R
	8	...		16	45·60	...		34	16·1	M
	11	...		16	45·48	...		34	16·2	M
240					*Anon.*					
May	12	8·5	16	18	6·06	...	130	57	19·0	R
	14	8·5		18	6·13	...		57	18·6	R
	19	8·5		18	6·20	...		57	20·0	R
	24	8·5		18	6·16	...		57	19·8	R
241					21 *Ursæ Minoris* η					
May	7	...	16	20	56·06	...	13	58	29·0	R
	8	...		20	56·08	...		58	29·5	R
	21	...		20	56·04	...		58	32·2	R
	23	...		20	56·21	...		58	32·7	R
242					*Anon.*					
May	11	8·0	16	23	32·65	...	136	25	16·1	R
	12	8·0		23	32·69	...		25	17·0	R
	14	8·0		23	32·67	...		25	17·1	R
243					*Anon.*					
May	5	7·5	16	23	33·69	...	128	44	44·1	R
244					27 *Herculis* β					
May	24	...	16	25	11·32	...	68	15	19·0	R
245					*Stone* 8976.					
May	10	7·0	16	25	25·41	...	123	16	48·1	R
	18	7·0		25	25·31	...		16	50·5	R
	19	7·0		25	25·24	...		16	50·3	R
246					*Anon.*					
May	14	9·5	16	29	2·64	...	125	32	35·8	R
	15	9·5		29	2·62	...		32	36·2	R
	25	9·5		29	2·64	...		32	35·9	R
247					η^1 *Trianguli Australis.*					
May	11	...	16	29	19·55	...	158	3	35·1	R
	12	...		29	19·57	...		3	37·0	R
248					*Stone* 9014.					
May	5	7·0	16	30	33·44	...	128	54	48·0	R
249					13 *Ophiuchi* ζ					
May	18	...	16	30	42·98	...	100	19	43·6	R
	19	...		30	42·95	...		19	44·0	R
	21	...		30	42·96	...		19	44·0	R
	22	...		30	43·03	...		19	44·2	R
	23	...		30	43·07	...		19	44·4	R
	24	...		30	43·00	...		19	44·2	R
	28	...		30	43·02	...		19	43·9	R
	29	...		30	43·00	...		19	44·1	R
	30	...		30	42·98	...		19	44·2	R
	31	...		30	42·98	...		19	44·6	R
June	2	...		30	43·08	...		19	42·3	R
	7	...		30	42·99	...		19	44·0	R
	8	...		30	43·00	...		19	44·4	M
	11	...		30	43·05	...		19	43·8	M
	14	...		30	42·94	...		19	43·5	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
June 15	...	16	30	43·03	...	100	19	42·6	M
19	...		30	43·02	...		19	44·9	M
20	...		30	43·02	...		19	44·5	M
22	...		30	42·90	...		·19	44·4	M
26	...		30	42·98	...		19	44·6	M
250	*Lacaille* 6881.								
May 9	...	16	31	31·80	...	157	12	5·6	R
10	...		31	31·80	...		12	4·3	R
251	*Anon.*								
May 14	7·5	16	36	1·13	...	128	6	36·2	R
15	7·5		36	1·11	...		6	36·4	R
18	7·5		36	1·18	...		6	36·2	R
19	7·5		36	1·17	...		6	36·2	R
21	7·5		36	1·10	...		6	36·5	R
252	*Anon.*								
May 8	8·0	16	38	51·76	...	125	34	31·5	R
9	8·0		38	51·78	...		34	35·8	R
253	*Anon.*								
May 25	9·5	16	41	15·36	...	126	18	19·8	R
28	9·5		41	15·35	...		18	21·5	R
29	9·5		41	15·33	...		18	21·1	R
30	9·5		41	15·31	...		18	22·2	R
254	*Anon.*								
May 10	7·0	16	41	37·68	...	132	53	52·9	R
255	*Anon.*								
May 11	8·0	16	42	29·39	...	127	50	30·5	R
12	8·0		42	29·48	...		50	30·8	R
14	8·0		42	29·61	...		50	31·5	R
256	*Anon*								
May 19	7·5	16	44	2·03	...	129	2	39·3	R
21	7·5		44	1·92	...		2	39·8	R
22	7·5		44	1·88	...		2	39·4	R
23	7·5		44	2·13	...		2	39·9	R
24	7·5		44	2·14	...		2	38·8	R
257	*Taylor* 7793.								
May 8	7·0	16	44	42·16	...	127	23	47·9	R
258	*Anon.*								
May 15	9·5	16	49	0·75	...	132	12	58·1	R
18	9·5		49	0·76	...		12	58·0	R
259	*Anon.*								
May 5	8·5	16	50	20·26	...	128	26	15·6	R
9	8·5		50	20·15	...		26	18·3	R
11	8·5		50	20·12	...		26	17·6	R
14	8·5		50	20·17	...		26	19·0	R
260	*Anon.*								
May 14	8·0	16	56	52·99	...	129	52	39·5	R
15	8·0		56	52·92	...		52	39·7	R
18	8·0		56	52·88	...		52	39·8	R
19	8·0		56	52·87	...		52	39·1	R
21	8·0		56	52·92	...		52	40·8	R
261	22 *Ursæ Minoris* ϵ								
May 12	...	16	58	0·05	4	7	46	16·6	R
June 15	...		57	59·69	3		46	17·1	M
262	*Anon.*								
May 5	9·0	16	59	23·33	...	132	35	35·5	R
263	*R. P. L.* 118.								
Aug. 11	...	17	1	59·60	3	5	8	35·5	R
13	...		1	59·25	3		8	33·9	R
14	...		1	59·65	3		8	34·6	R
16	...		1	58·47	3		8	35·3	R
18	...		1	58·52	3		8	36·1	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
R. P. L. 118—*s.p.*									
Jan. 2	...	17	2	0·00	3	5	8	34·8	R
3	...		2	0·22	3		8	34·1	R
8	...		1	59·89	3		8	34·0	M
9	...		2	0·23	3		8	34·4	M
19	...		1	59·48	3		8	36·5	M
24	...		1	59·71	3		8	32·3	M
29	...		1	59·94	3		8	37·9	M
Feb. 1	...		1	59·39	3		8	36·0	R
2	...		1	59·18	3		8	37·8	R
7	...		2	0·03	3		8	35·9	M
264 *Stone* 9338.									
May 21	7·0	17	2	48·40	...	181	17	23·9	R
22	7·0		2	48·33	...		17	24·2	R
24	7·0		2	48·34	...		17	24·5	R
25	7·0		2	48·36	...		17	24·2	R
29	7·0		2	48·14	...		17	22·4	R
265 *Anon.*									
May 15	7·5	17	2	51·11	...	181	32	55·1	R
30	7·5		2	50·91	...		32	56·9	R
31	7·5		2	50·87	...		32	57·4	R
June 1	7·5		2	50·85	...		32	57·0	R
2	7·5		2	50·85	...		32	58·9	R
266 35 *Ophiuchi* η									
June 7	...	17	3	40·08	...	105	34	41·0	R
9	...		3	40·05	...		34	42·6	M
11	...		3	39·95	...		34	45·2	M
14	...		3	40·13	..		34	45·9	M
19	...		3	40·03	...		34	45·0	M
20	...		3	40·02	...		34	43·7	M
22	...		3	39·95	...		34	44·3	M
26	...		3	40·09	...		34	43·9	M
July 3	...		3	40·11	...		34	42·4	R
4	...		3	40·10	...		34	43·1	R
17	...		3	40·08	...		34	44·2	R
18	...		3	40·02	...		34	43·0	R
20	...		3	40·02	...		34	42·6	R
24	...		3	40·06	...		34	42·6	R
July 28	...	17	3	40·09	...	105	34	42·5	R
30	...		3	40·13	...		34	43·5	R
31	...		3	40·12	...		34	43·3	R
Aug. 2	...		3	40·11	...		34	42·9	R
3	...		3	40·09	...		34	43·4	R
4	...		3	40·11	...		34	43·6	R
267 *Anon.*									
May 12	...	17	6	15·90	...	181	19	56·9	R
268 *Stone* 9389.									
May 14	...	17	8	59·79	...	129	17	47·7	R
15	...		8	59·80	...		17	48·2	R
269 *Anon.*									
Aug. 9	8·0	17	9	34·36	...	128	31	56·1	R
10	8·0		9	34·35	...		31	56·1	R
11	8·0		9	34·20	...		31	54·7	R
14	8·0		9	34·20	...		31	55·3	R
16	9·0		9	34·22	...		31	52·5	R
270 *Anon.*									
June 19	9·0	17	10	16·79	...	123	20	56·4	M
20	9·0		10	16·72	...		20	55·8	M
July 3	9·0		10	16·60	...		20	55·0	R
4	9·0		10	16·58	...		20	55·9	R
17	9·0		10	16·73	...		20	53·5	R
271 *Anon.*									
July 28	8·0	17	10	47·27	...	125	57	30·9	R
30	8·0		10	47·21	...		57	33·7	R
31	8·0		10	47·14	...		57	32·5	R
Aug. 2	8·0		10	47·13	...		57	31·5	R
272 *Stone* 9428.									
May 18	6·0	17	12	18·41	...	155	35	2·3	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
273			*Anon.*						
June 7	9·0	17	13	17·89	...	129	22	49·1	R
8	9·0		13	18·14	...		22	47·0	M
9	9·0		13	18·05	...		22	47·8	M
14	9·0		13	18·06	...		22	50·9	M
274			*Anon.*						
May 19	7·0	17	14	38·81	...	131	58	17·5	R
22	7·5		14	38·72	...		58	17·8	R
25	7·5		14	38·77	...		58	17·5	R
28	7·5		14	38·75	...		58	18·5	R
275			*Stone* 9448.—2*nd*.						
May 15	7·0	17	14	41·15	...	128	5	8·7	R
21	7·0		14	41·18	...		5	9·2	R
23	7·0		14	41·37	...		5	9·0	R
24	7·0		14	41·41	...		5	7·3	R
276			*Anon.*						
Aug. 4	8·5	17	15	31·06	...	145	52	52·0	R
8	8·5		15	30·97	...		52	54·8	R
10	8·5		15	31·09	...		52	51·5	R
11	8·5		15	31·05	...		52	51·4	R
14	8·5		15	30·96	...		52	50·6	R
277			*Anon.*						
June 14	9·0	17	17	18·91	5	138	28	58·3	M
15	9·5		17	18·64	...		28	54·3	M
20	9·0		17	18·61	...		28	54·5	M
July 3	9·0		17	18·89	...		28	53·8	R
4	9·0		17	18·79	...		28	55·1	R
278			*Stone* 9479.						
June 11	...	17	17	27·71	...	138	30	21·9	M
22	...		17	27·44	...		30	21·7	M
July 18	7·0		17	27·67	...		30	22·7	R
20	7·0		17	27·66	...		30	22·4	R
24	7·0		17	27·68	4		30	21·4	R
279			49 *Ophiuchi σ*						
May 22	...	17	20	42·60	...	85	45	24·8	R
24	...		20	42·60	...		45	24·9	R
25	...		20	42·63	...		45	24·7	R
29	...		20	42·55	...		45	24·6	R
30	...		20	42·60	...		45	25·2	R
31	...		20	42·62	...		45	24·9	R
June 1	...		20	42·55	...		45	25·5	R
2	...		20	42·52	...		45	24·8	R
9	...		20	42·54	...		45	25·1	M
19	...		20	42·55	...		45	26·5	M
280			*Anon.*						
July 28	8·0	17	21	46·30	...	127	10	44·1	R
30	8·0		21	46·19	...		10	44·9	R
31	8·0		21	46·12	...		10	47·0	R
Aug. 2	8·0		21	46·15	...		10	45·4	R
3	8·0		21	46·19	...		10	45·0	R
281			*a Aræ.*						
June 20	...	17	22	47·85	5	139	46	53·4	M
July 20	...		22	47·83	...		46	53·4	R
Aug. 10	...		22	47·67	...		46	53·0	R
11	...		22	47·76	...		46	52·4	R
14	...		22	47·60	...		46	52·8	R
282			34 *Scorpii υ*						
Aug. 13	...	17	22	48·40	...	127	12	4·1	R
16	....		22	48·28	...		12	3·4	R
18	...		22	48·23	...		12	3·8	R
283			*Stone* 9566.						
June 22	7·0	17	26	10·80	...	130	26	48·9	M
July 3	7·0		26	10·89	...		26	46·9	R
4	7·0		26	10·68	...		26	47·6	R
17	7·0		26	10·85	...		26	47·4	R
18	7·0		26	10·89	...		26	48·9	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
284	*Anon.*								
May 28	7·0	17	28	7·56	...	134	29	10·4	R
285	*Stone* 9578.								
Aug. 9	7·0	17	28	9·84	...	146	44	38·7	R
10	7·0		28	9·86	...		44	38·5	R
Sep. 4	...		28	9·71	...		44	38·8	M
286	*Brisbane* 6132.								
May 31	8·0	17	28	38·23	...	135	4	47·9	R
287	*θ Scorpii.*								
June 2	...	17	28	54·64	...	132	55	14·3	R
8	...		28	54·63	...		55	17·7	M
9	...		28	54·56	...		55	17·8	M
11	...		28	54·75	5		55	18·1	M
15	...		28	54·55	...		55	16·7	M
288	*Anon.*								
July 28	8·0	17	29	9·13	...	128	42	30·9	R
30	8·0		29	8·89	...		42	31·9	R
31	8·0		29	8·83	...		42	31·6	R
Aug. 2	8·0		29	8·95	...		42	30·9	R
4	8·0		29	8·78	...		42	30·8	R
289	*Anon.*								
May 22	7·0	17	31	44·52	...	128	17	58·1	R
23	7·0		31	44·59	...		17	57·6	R
24	7·0		31	44·68	...		17	57·9	R
25	7·0		31	44·64	...		17	58·1	R
29	7·0		31	44·45	...		17	57·5	R
290	*R. P. L.* 120.								
May 18	...	17	31	46·58	3	5	17	27·0	R
19	...		31	46·69	3		17	24·7	R
23	...		31	46·67	3		17	24·6	R
June 1	..		31	46·33	3		17	26·1	R
Aug. 25	...		31	46·63	3		17	26·6	R
	R. P. L. 120—*s.p.*								
Jan. 18	...	17	31	46·53	3	5	17	27·0	M
19	...		31	47·29	3		17	25·6	M
27	...		31	46·77	3		17	24·2	M
30	...		31	46·41	3		17	27·9	M
31	...		31	46·51	3		17	26·1	M
Feb. 8	...		31	46·63	3		17	27·3	R
9	...		31	46·43	3		17	25·2	R
10	...		31	46·70	3		17	25·1	R
12	...		31	46·48	3		17	26·3	R
14	...		31	46·60	3		17	25·2	R
291	*Anon.*								
June 20	7·0	17	32	56·29	...	130	1	35·4	M
July 4	7·0		32	56·02	...		1	35·6	R
18	7·0		32	56·17	...		1	36·5	R
20	7·0		32	56·11	...		1	36·1	R
24	7·0		32	56·28	4		1	35·6	R
292	*Brisbane* 6160.								
May 21	8·0	17	33	20·24	...	134	43	12·5	R
293	*Anon.*								
Aug. 9	7·5	17	35	28·26	...	144	4	40·3	R
10	7·5		35	28·27	...		4	40·7	R
11	7·5		35	28·27	...		4	40·2	R
14	7·5		35	28·14	...		4	40·3	R
18	7·5		35	28·30	...		4	39·3	R
294	60 *Ophiuchi β*								
May 18	...	17	37	41·55	...	85	22	56·5	R
19	...		37	41·52	...		22	56·7	R
21	...		37	41·47	...		22	57·0	R
23	...		37	41·48	...		22	57·7	R
30	...		37	41·51	...		22	57·0	R
June 7	...		37	41·47	...		22	55·6	R
9	...		37	41·52	...		22	56·3	M
14	...		37	41·43	...		22	58·2	M
15	...		37	41·36	...		22	56·2	M
22	...		37	41·54	...		22	58·4	M
26	...		37	41·45	...		22	58·8	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	*m.*	*s.*		°	′	″	
July 3	...	17	37	41·42	...	85	22	56·7	R
4	...		37	41·44	...		22	57·3	R
17	...		37	41·50	...		22	59·9	R
18	...		37	41·45	...		22	57·8	R
20	...		37	41·49	..		22	57·0	R
24	...		37	41·53	...		22	55·8	R
28	...		37	41·38	...		22	56·8	R
30	...		37	41·49	...		22	58·5	R
31	...		37	41·43	...		22	58·9	R
295		*Anon.*							
June 8	8·5	17	39	34·85	...	128	18	49·3	M
11	...		39	34·85	5		18	48·8	M
Aug. 2	8·5		39	34·58	...		18	47·9	R
4	8·5		39	34·61	...		18	48·0	R
296		*Anon.*							
June 20	8·5	17	40	23·50	4	128	18	52·4	M
Aug. 8	8·5		40	23·42	...		18	56·4	R
9	8·5		40	23·31	...		18	53·3	R
10	8·5		40	23·23	...		18	52·8	R
11	8·5		40	23·26	...		18	52·2	R
297		*Anon.*							
Aug. 18	8·0	17	42	51·21	...	143	28	18·3	R
Sep. 4	...		42	51·34	...		28	17·2	M
298		*Anon.*							
May 19	7·5	17	44	10·64	...	129	6	59·0	R
22	7·5		44	10·54	...		6	58·8	R
23	7·5		44	10·81	...		6	59·5	R
24	7·5		44	10·70	...		6	58·0	R
25	7·5		44	10·65	...		6	59·9	R
299		*Taylor* 8243.							
May 29	...	17	44	30·77	...	131	57	30·3	R
June 1	...		44	30·68	...		57	30·1	R
7	...		44	30·47	...		57	31·1	R
9	...		44	30·73	...		57	26·8	M
11	...		44	31·07	...		57	30·9	M
300		*Anon.*							
May 28	9·5	17	45	11·77	...	131	58	3·5	R
30	9·5		45	11·64	...		58	3·7	R
June 14	9·5		45	11·80	5		58	1·2	M
15	9·5		45	11·83	...		58	3·5	M
22	...		45	11·80	...		58	2·7	M
301		*Anon.*							
July 28	9·0	17	45	40·00	...	129	13	58·5	R
30	9·0		45	39·84	...		13	59·8	R
31	9·0		45	39·77	3		14	0·6	R
Aug. 11	9·0		45	40·01	...		13	59·1	R
13	9·0		45	39·93	...		13	58·7	R
302		*Anon.*							
May 18	8·0	17	50	28·62	...	151	21	14·1	R
19	8·0		50	28·57	...		21	14·2	R
23	8·0		50	28·62	...		21	13·5	R
303		*Anon.*							
June 14	8·0	17	51	51·27	...	129	3	3·9	M
15	8·0		51	51·29	...		3	3·1	M
22	7·0		51	51·14	...		3	4·0	M
July 3	8·0		51	51·37	...		3	2·9	R
4	8·0		51	51·28	...		3	4·1	R
304		*Anon.*							
May 22	7·0	17	52	15·64	...	127	23	50·8	R
24	7·0		52	15·87	...		23	50·9	R
25	7·0		53	15·86	...		23	51·0	R
28	7·0		52	15·74	...		23	50·9	R
29	7·0		52	15·64	...		23	51·3	R
305		*Anon.*							
May 30	9·0	17	52	34·35	...	137	2	29·2	R
June 1	9·0		52	34·27	...		2	29·0	R
7	9·0		52	34·02	...		2	27·6	R
8	9·0		52	34·27	...		2	30·6	M
11	...		52	34·56	...		2	29·6	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
306			*O. A. S.* 17446.						
Aug. 8	...	17	52	45·65	...	119	53	1·3	R
9	...		52	45·56	...		52	58·0	R
10	...		52	45·50	...		52	58·7	R
11	...		52	45·48	...		52	57·4	R
13	...		52	45·59	...		52	57·3	R
307			*O. A. S.* 17452.						
July 24	...	17	52	58·59	...	119	48	52·3	R
28	...		52	58·44	...		48	54·3	R
30	...		52	58·39	...		48	55·5	R
Aug. 2	...		52	58·42	..		48	53·0	R
3	...		52	58·45	4		48	54·1	R
308			*Anon.*						
May 19	8·9	17	56	36·54	...	128	56	59·8	R
309			*Stone* 9840.						
June 1	7·0	17	57	33·57	...	127	28	31·7	R
15	7·0		57	33·59	...		28	29·6	M
20	...		57	33·64	5		28	30·8	M
July 4	7·0		57	33·74	...		28	31·6	R
28	7·0		57	33·59	...		28	30·9	R
310			*Anon.*						
May 29	7·5	17	58	5·20	...	127	26	19·7	R
June 7	7·5		58	5·25	...		26	19·2	R
9	...		58	5·53	...		26	21·3	M
14	7·0		58	5·34	...		26	21·0	M
22	7·5		58	5·31	...		26	19·8	M
311			*Stone* 9849.						
May 30	7·0	17	58	13·11	...	127	30	7·1	R
June 11	...		58	13·37	5		30	7·4	M
July 30	7·0		58	13·28	...		30	7·5	R
31	7·0		58	13·26	...		30	7·3	R
Aug. 2	7·0		58	13·18	...		30	6·7	R
312			*Anon.*						
May 18	...	17	59	22·53	..	128	13	9·7	R
23	...		59	22·59	...		13	8·5	R
24	...		59	22·56	...		13	7·2	R
25	...		59	22·54	...		13	8·6	R
28	...		59	22·64	...		13	9·3	R
313			*Anon.*						
Aug. 8	8·0	17	59	31·89	...	129	31	45·5	R
9	8·0		59	31·73	...		31	42·1	R
11	8·0		59	31·50	...		31	42·3	R
13	8·0		59	31·65	...		31	42·6	R
14	8·0		59	31·66	...		31	42·2	R
314			*Anon.*						
Aug. 14	7·5	18	3	21·93	...	128	12	57·1	R
16	7·5		3	22·10	...		12	57·6	R
18	7·5		3	22·16	...		12	57·9	R
25	7·5		3	22·20	...		12	57·9	R
Sep. 15	...		3	22·23	...		12	58·7	M
315			*Anon.*						
June 15	9·7	18	5	50·73	...	133	7	10·8	M
316			*Stone* 9922.						
May 19	...	18	5	52·94	...	133	10	51·8	R
22	...		5	52·82	...		10	51·4	R
23	...		5	52·84	...		10	51·3	R
24	...		5	52·77	...		10	51·6	R
July 4	...		5	52·88	...		10	52·8	R
18	...		5	52·99	...		10	52·3	R
28	...		5	53·00	...		10	51·8	R
317			*Stone* 9924.						
May 25	7·5	18	6	0·83	...	131	56	15·1	R
28	7·0		6	0·80	...		56	16·1	R
29	7·0		6	0·81	...		56	15·7	R
30	7·0		6	0·82	...		56	16·7	R
June 1	7·0		6	0·76	...		56	16·2	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
318			*Anon.*						
July 30	7·5	18	6	41·76	...	126	55	43·9	R
Aug. 2	7·5		6	41·54	...		55	44·7	R
8	7·5		6	41·85	...		55	47·7	R
9	7·5		6	41·70	...		55	44·1	R
10	7·5		6	41·65	...		55	44·8	R
319			*Anon.*						
June 8	9·0	18	9	5·03	5	131	16	18·0	M
22	9·0		9	5·01	...		16	18·6	M
Aug. 11	8·5		9	4·78	...		16	17·3	R
13	8·5		9	4·98	...		16	15·9	R
320			23 *Ursæ Minoris* δ						
June 7	...	18	10	3·96	3	3	23	24·2	R
Aug. 14	...		10	2·43	3		23	22·8	R
321			*Anon.*						
May 23	8·0	18	10	21·14	...	126	23	38·6	R
322			*Anon.*						
May 28	8·0	18	13	25·60	...	136	5	3·5	R
29	8·0		13	25·67	...		5	3·8	R
30	8·0		13	25·60	...		5	4·1	R
June 1	8·0		13	25·52	...		5	3·1	R
9	...		13	25·72	...		5	0·6	M
323			*Anon.*						
May 25	8·0	18	14	12·57	...	127	48	38·4	R
324			*Taylor* 8452.						
Aug. 18	...	18	14	14·57	...	128	42	29·2	R
25	...		14	14·42	...		42	29·3	R
Sep. 4	...		14	14·50	...		42	28·4	M
11	...		14	14·43	...		42	29·5	M
18	...		14	14·73	3		42	29·0	M
325			58 *Serpentis* η						
June 11	...	18	15	15·38	...	92	55	42·6	M
15	...		15	15·36	...		55	41·4	M
20	...		15	15·48	...		55	40·5	M
22	...		15	15·46	...		55	42·5	M
July 3	...		15	15·32	...		55	40·5	R
4	...		15	15·18	...		55	41·6	R
17	...		15	15·28	4		55	40·4	R
18	...		15	15·28	...		55	41·9	R
20	...		15	15·29	...		55	41·7	R
24	...		15	15·32	...		55	41·2	R
28	...		15	15·31	...		55	42·5	R
30	...		15	15·28	...		55	40·2	R
31	...		15	15·31	...		55	40·0	R
Aug. 2	...		15	15·26	...		55	41·1	R
3	...		15	15·25	...		55	41·5	R
4	...		15	15·23	...		55	42·1	R
8	...		15	15·28	...		55	40·2	R
9	...		15	15·28	...		55	41·6	R
10	...		15	15·27	...		55	41·6	R
11	...		15	15·31	...		55	41·9	R
326			*Anon.*						
Aug. 16	7·0	18	15	22·20	...	128	47	32·3	R
Sep. 5	...		15	22·38	6		47	28·0	M
15	...		15	22·25	...		47	30·2	M
17	...		15	22·39	6		47	28·8	M
327			*Anon.*						
May 19	7·0	18	15	42·50	...	138	50	53·0	R
22	7·0		15	42·38	...		50	53·4	R
23	7·0		15	42·38	...		50	53·0	R
24	7·0		15	42·29	...		50	53·2	R
328			*Anon.*						
May 18	8·0	18	16	32·65	...	127	17	6·3	R
329			22 *Sagittarii* λ						
June 8	...	18	20	44·96	...	115	29	3·1	M
July 4	...		20	45·08	...		29	8·0	R
18	...		20	45·07	...		29	6·7	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
July 20	...	18	20	45·00	...	115	29	5·2	R
24	...		20	44·89	...		29	4·9	R
28	...		20	45·03	...		29	6·1	R
30	...		20	44·91	...		29	5·6	R
Aug. 2	...		20	44·94	...		29	6·9	R
3	...		20	44·97	...		29	6·5	R
4	...		20	44·93	...		29	5·2	R
8	...		20	44·95	...		29	7·8	R
9	...		20	45·00	...		29	4·5	R
10	...		20	45·02	...		29	4·6	R
11	...		20	44·98	...		29	6·1	R
13	...		20	44·98	...		29	4·8	R
14	...		20	44·97	...		29	7·2	R
16	...		20	45·00	...		29	6·5	R
18	...		20	45·00	...		29	7·3	R
25	...		20	44·90	...		29	7·1	R
28	...		20	44·95	...		29	6·1	R
330			*Anon.*						
May 23	9·5	18	22	46·09	...	129	38	49·7	R
28	9·5		22	46·28	...		38	50·8	R
29	9·5		22	45·98	...		38	50·7	R
30	9·5		22	45·97	...		38	51·3	R
June 1	9·5		22	45·89	...		38	51·0	R
331			*Anon.*						
June 7	7·0	18	23	24·78	...	127	40	10·1	R
9	...		23	24·77	...		40	12·1	M
11	...		23	24·90	...		40	10·2	M
15	7·0		23	24·73	...		40	10·4	M
22	7·0		23	24·84	...		40	11·3	M
332			*Stone* 10124.						
May 24	7·0	18	29	26·83	...	131	42	30·5	R
28	7·0		29	26·80	...		42	31·5	R
29	7·0		29	26·82	...		42	32·4	R
30	7·0		29	26·78	...		42	33·6	R
June 1	7·0		29	26·63	...		42	34·4	R
333			*Anon.*						
June 22	8·5	18	30	45·26	..	127	5	56·9	M
Aug. 13	8·5		30	45·18	...		5	57·5	R
Aug. 14	8·5	18	30	45·30	...	127	5	57·3	R
16	8·5		30	45·48	...		5	57·2	R
18	8·5		30	45·43	...		5	57·5	R
25	8·5		30	45·38	...		5	57·1	R
334			*Anon.*						
July 4	9·0	18	30	55·10	...	127	58	16·9	R
Aug. 8	9·0		30	55·36	...		58	17·9	R
9	9·0		30	55·23	...		58	19·0	R
10	9·0		30	55·28	...		58	18·7	R
11	9·0		30	55·29	...		58	18·3	R
335			*Anon.*						
June 7	7·5	18	31	24·82	...	127	23	13·8	R
8	...		31	25·07	6		23	14·0	M
9	7·5		31	24·78	...		23	12·1	M
14	7·5		31	24·80	...		23	15·0	M
336			*Stone* 10154.						
May 18	...	18	32	12·34	...	134	16	33·9	R
19	...		32	12·16	...		16	33·8	R
23	...		32	12·17	...		16	32·1	R
337			*Anon.*						
May 25	8·0	18	34	2·21	...	125	42	3·8	R
28	8·0		34	2·13	...		42	4·9	R
29	8·0		34	2·38	...		42	6·3	R
30	8·0		34	2·36	...		42	6·5	R
June 1	8·0		34	2·29	..		42	6·1	R
338			*Anon.*						
Aug. 28	8·0	18	34	16·75	...	124	34	19·6	R
Sep. 4	...		34	16·61	...		34	18·0	M
13	...		34	16·56	...		34	17·0	M
15	7·8		34	16·56	...		34	17·8	M
17	...		34	16·85	3		34	16·6	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
339		*Stone* 10187.							
July 30	8·0	18	36	45·21	...	127	0	6·9	R
Aug. 10	7·5		36	45·06	...		0	8·3	R
13	7·5		36	45·12	...		0	7·2	R
16	7·5		36	45·11	...		0	7·7	R
18	7·5		36	45·07	...		0	8·3	R
340		*Taylor* 8599.							
June 11	...	18	36	49·54	...	129	48	6·8	M
15	...		36	49·30	...		48	5·2	M
July 18	...		36	49·52	...		48	7·2	R
20	...		36	49·48	...		48	6·8	R
Aug. 11	...		36	49·24	...		48	6·8	R
14	...		36	49·33	...		48	6·2	R
341		*Taylor* 8600.							
June 14	7·5	18	36	51·35	5	129	51	37·3	M
20	7·0		36	51·40	5		51	36·5	M
July 3	7·0		36	51·48	...		51	36·4	R
4	7·0		36	51·55	...		51	37·7	R
Aug. 9	7·0		36	51·59	...		51	37·4	R
342		*Anon.*							
May 18	7·5	18	38	45·46	...	131	16	59·7	R
19	7·5		38	45·43	...		16	59·6	R
24	7·5		38	45·57	..		17	1·3	R
25	7·5		38	45·56	...		17	1·7	R
28	7·5		38	45·55	...		17	0·5	R
343		*Anon.*							
May 29	9·0	18	39	14·20	...	128	56	33·9	R
30	9·0		39	14·16	...		56	34·3	R
June 1	9·0		39	14·17	...		56	34·3	R
7	9·0		39	13·90	...		56	33·7	R
8	9·0		39	14·43	...		56	33·7	M
344		*Stone* 10239.							
Aug. 8	...	18	42	49·64	...	134	36	22·9	R
9	...		42	49·50	...		36	20·6	R
10	...		42	49·55	...		36	20·3	R
11	..		42	49·39	...		36	19·7	R
13	...		42	49·36	...		36	19·6	R
14	...		42	49·36	...		36	19·4	R
345		*Anon.*							
June 15	8·0	18	43	30·96	...	134	49	12·8	M
Sep. 4	8·3		43	31·07	...		49	14·2	M
15	7·7		43	31·00	...		49	14·7	M
22	...		43	30·98	...		49	11·6	M
26	8·0		43	31·44	...		49	13·6	M
346		*Taylor* 8647.							
Sep. 13	...	18	43	38·53	...	134	40	15·5	M
20	...		43	38·66	...		40	15·8	M
27	7·0		43	38·48	6		40	13·8	M
29	7·5		43	38·59	...		40	15·3	M
347		*Anon.*							
Aug. 28	8·0	18	43	48·76	...	125	31	1·6	R
Sep. 14	7·8		43	48·70	6		31	1·6	M
28	...		43	48·89	...		31	2·8	M
348		*Anon.*							
May 29	9·5	18	45	24·16	...	129	28	13·2	R
30	9·0		45	24·12	...		28	13·7	R
June 1	9·0		45	24·04	...		28	13·5	R
14	9·0		45	24·31	...		28	14·3	M
349		*Anon.*							
Aug. 14	8·0	18	47	6·37	...	133	50	45·8	R
18	8·0		47	6·66	4		50	47·0	R
25	8·0		47	6·52	...		50	46·6	R
Sep. 17	...		47	6·61	...		50	45·4	M
24	8·0		47	6·56	...		50	47·7	M

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	*m.*	*s.*		°	′	″	
350	*Taylor* 8685.								
Aug. 8	...	18	48	44·25	...	127	29	28·8	R
9	...		48	44·33	...		29	24·8	R
10	...		48	44·07	...		29	24·3	R
11	...		48	44·09	...		29	26·0	R
13	...		48	44·09	...		29	23·3	R
351	*Anon.*								
May 30	9·5	18	52	14·82	...	132	56	57·4	R
352	*Taylor* 8715.—1*st.*								
July 30	7·5	18	53	8·67	...	127	13	16·5	R
Sep. 15	7·0		53	8·66	...		13	16·0	M
25	...		53	8·53	5		13	14·8	M
27	7·3		53	8·68	...		13	15·7	M
28	...		53	8·66	...		13	16·3	M
353	*Taylor* 8715.—2*nd.*								
Sep. 17	7·5	18	53	9·90	...	127	13	19·1	M
20	...		53	9·67	...		13	19·3	M
22	...		53	9·78	...		13	18·1	M
24	...		53	9·74	...		13	19·2	M
26	7·3		53	9·80	...		13	18·2	M
354	*Anon.*								
July 28	8·5	18	53	54·82	...	128	6	55·2	R
Sep. 14	8·5		53	54·91	...		6	57·3	M
355	13 *Aquilæ* ε								
June 1	...	18	54	18·66	...	75	5	23·2	R
7	...		54	18·62	...		5	21·6	R
9	...		54	18·66	...		5	21·4	M
14	...		54	18·67	...		5	24·5	M
15	...		54	18·67	...		5	22·2	M
20	...		54	18·47	...		5	22·1	M
Aug. 8	...		54	18·67	...		5	23·5	R
9	...		54	18·62	...		5	22·1	R
10	...		54	18·66	...		5	22·9	R
11	...		54	18·58	...		5	22·2	R
13	...		54	18·62	...		5	22·7	R
Aug. 14	...	18	54	18·74	...	75	5	22·2	R
16	...		54	18·63	...		5	22·6	R
18	...		54	18·62	...		5	21·6	R
25	...		54	18·67	...		5	22·2	R
28	...		54	18·65	...		5	21·2	R
Sep. 4	...		54	18·55	...		5	23·3	M
5	...		54	18·57	...		5	22·8	M
10	...		54	18·64	...		5	21·3	M
11	...		54	18·60	...		5	22·3	M
356	*Stone* 10351.								
Sep. 29	6·0	18	55	18·37	...	128	25	13·5	M
Oct. 1	6·0		55	18·18	...		25	14·2	R
4	6·0		55	18·21	4		25	11·5	R
5	6·0		55	18·23	...		25	11·8	R
357	*Anon.*								
June 15	7·5	19	0	12·02	...	135	15	25·2	M
Sep. 4	7·5		0	11·69	...		15	26·8	M
13	...		0	11·79	...		15	25·5	M
14	...		0	11·69	5		15	26·3	M
15	7·5		0	11·72	...		15	26·9	M
358	*Stone* 10391.								
Sep. 26	7·3	19	0	33·03	...	132	36	21·5	M
27	7·3		0	33·01	...		36	21·9	M
359	*Stone* 10400.								
June 11	...	19	1	34·60	...	130	0	36·7	M
14	...		1	34·39	...		0	38·8	M
22	...		1	34·44	...		0	37·6	M
July 18	...		1	34·78	...		0	38·3	R
30	...		1	34·64	...		0	38·9	R
360	*Anon.*								
Aug. 11	8·0	19	4	10·15	...	135	27	42·0	R
13	9·0		4	9·97	...		27	41·4	R
14	8·5		4	10·01	...		27	41·5	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
361	*Stone* 10420.								
Sep. 28	...	19	4	14·46	..	127	46	29·6	M
29	...		4	14·58	...		46	27·6	M
Oct. 1	...		4	14·52	...		46	27·5	R
4	...		4	14·47	...		46	26·0	R
5	...		4	14·52	...		46	27·1	R
362	*Stone* 10432.								
Aug. 8	...	19	6	8·82	...	135	23	26·3	R
9	...		6	8·73	...		23	22·6	R
363	*Anon.*								
Aug. 25	7·5	19	7	41·64	...	129	24	5·0	R
28	7·5		7	41·62	...		24	5·5	R
364	*Taylor* 8823.								
June 15	...	19	7	50·29	...	135	40	3·9	M
Sep. 4	...		7	50 27	...		40	4·2	M
10	...		7	50·37	4		40	0·2	M
13	...		7	50·27	...		40	3·9	M
15	...		7	50·28	...		40	4·8	M
20	...		7	50·32	...		40	6·3	M
365	*Stone* 10451.								
Sep. 11	...	19	8	52·41	5	135	37	34·5	M
14	...		8	52·26	...		37	33·6	M
22	...		8	52·39	5		37	32·2	M
24	...		8	52·24	...		37	33·6	M
366	*Anon.*								
Aug. 13	9·5	19	10	13·33	...	130	46	34·5	R
14	9·5		10	13·37	...		46	34·1	R
367	*Anon.*								
Aug. 11	7·5	19	10	40·16	...	129	45	12·3	R
368	*Stone* 10465.								
Oct. 1	6·0	19	11	54·50	...	125	37	58·8	R
4	6·0		11	54·47	4		37	59·0	R
5	6·0		11	54·76	...		37	59·8	R
369	*Stone* 10467.								
June 22	7·0	19	12	30·34	...	135	35	11·5	M
July 28	7·0		12	30·49	...		35	10·8	R
30	7·0		12	30·36	...		35	10·9	R
Aug. 9	7·0		12	30·46	...		35	13·0	R
10	7·0		12	30·47	...		35	12·5	R
370	*Stone* 10487.								
Sep. 26	7·0	19	14	14·69	...	119	49	18·6	M
27	7·0		14	14·61	...		49	17·3	M
28	7·0		14	14·37	...		49	19·1	M
Oct. 6	7·0		14	14·61	5		49	15·4	R
371	*Anon.*								
Aug. 25	...	19	14	18·73	...	127	26	18·0	R
28	...		14	18·71	...		26	18·4	R
Sep. 12	...		14	18·99	...		26	17·5	M
13	...		14	18·63	...		26	18·4	M
15	...		14	18·81	...		26	18·6	M
372	*Anon.*								
July 30	9·0	19	17	6·91	...	130	4	35·8	R
Aug. 11	9·0		17	6·72	...		4	37·5	R
373	49 *Sagittarii* χ^3								
Sep. 29	6·0	19	18	24·67	...	114	11	26·5	M
Oct. 9	6·0		18	24·62	...		11	22·9	R
374	*Anon.*								
Aug. 8	9·5	19	19	47·82	...	130	13	15·7	R
13	9·5		19	47·69	...		13	11·6	R
14	9·5		19	47·66	...		13	10·7	R
16	9·5		19	47·76	...		13	11·1	R
25	9·5		19	47·89	...		13	10·8	R
375	*Stone* 10534.								
Sep. 27	...	19	21	55·28	...	125	19	13·4	M
28	...		21	55·30	...		19	13·6	M
Oct. 5	...		21	55·21	...		19	12·8	R
9	...		21	55·09	...		19	14·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
376 *Anon.*									
July 28	8·0	19	22	5·66	4	132	34	15·8	R
30	8·0		22	5·78	...		34	17·4	R
Sep. 4	8·0		22	5·66	...		34	16·1	M
13	...		22	5·76	...		34	16·7	M
377 *Anon.*									
Aug. 8	9·0	19	25	49·63	...	133	42	50·9	R
378 *Anon*									
Sep. 14	...	19	25	58·47	...	146	55	2·1	M
15	...		25	58·58	...		55	2·5	M
379 *Taylor* 8982.									
Oct. 11	...	19	28	35·13	...	148	14	24·0	R
380 *Stone* 10583.									
July 30	7·5	19	29	32·25	...	131	42	59·3	R
Aug. 9	7·0		29	32·24	...		42	58·9	R
10	7·0		29	32·26	...		42	58·5	R
11	7·0		29	32·29	...		42	57·7	R
16	7·0		29	32·21	...		42	57·8	R
381 *Anon.*									
Aug. 25	8·0	19	29	45·56	...	125	29	57·6	R
28	8·0		29	45·56	...		29	57·5	R
Sep. 4	8·0		29	45·72	6		29	57·9	M
13	...		29	45·67	...		29	58·2	M
382 *Anon.*									
July 28	8·0	19	30	11·65	...	129	1	3·4	R
383 *Stone* 10594.									
Sep. 26	6·0	19	31	17·28	...	135	32	34·4	M
27	6·0		31	17·39	...		32	33·9	M
28	6·0		31	17·06	...		32	34·6	M
29	6·0		31	17·33	...		32	34·0	M
Oct. 1	6·0		31	17·06	...		32	34·2	R
384 *Stone* 10598.									
Oct. 9	6·7	19	31	57·21	...	129	41	45·9	R
13	6·7		31	57·31	...		41	48·3	R
385 *Anon.*									
Oct. 5	7·5	19	33	25·30	3	126	35	58·9	R
386 *Stone* 10622.									
Sep. 27	...	19	35	48·41	...	127	48	47·6	M
29	...		35	48·42	...		48	46·8	M
387 *Stone* 10624.									
Oct. 11	7·0	19	36	21·45	...	131	53	7·6	R
13	7·0		36	21·60	...		53	9·1	R
18	7·0		36	21·50	...		53	8·0	R
388 *R. P. L.* 133.									
Aug. 4	...	19	37	47·34	3	4	9	17·0	R
8	...		37	47·43	3		9	18·3	R
9	...		37	47·19	3		9	16·1	R
10	...		37	47·27	3		9	16·4	R
11	...		37	47·50	3		9	16·4	R
13	...		37	45·18	3		9	17·2	R
16	...		37	47·70	3		9	15·7	R
Sep. 4	...		37	45·61	3		9	16·4	M
R. P. L. 133.—*s.p.*									
Jan. 27	...	19	37	47·14	3	4	9	18·0	M
29	...		37	46·94	3		9	17·2	M
30	...		37	48·00	3		9	16·6	M
Feb. 1	...		37	46·84	2		9	18·1	R
2	...		37	47·27	3		9	19·0	R
8	...		37	47·11	3		9	18·3	R
389 *R. P. L.* 134.									
Aug. 8	...	19	39	34·97	3	4	9	34·9	R
9	...		39	34·88	3		9	32·0	R
11	...		39	35·03	3		9	31·6	R
13	...		39	35·01	3		9	31·2	R
Sep. 14	...		39	34·91	3		9	32·5	M
28	...		39	35·15	3		9	31·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
				R. P. L. 134.—*s.p.*					
Jan. 31	...	19	39	36·11	3	4	9	31·1	M
Feb. 7	...		39	35·88	3		9	31·7	M
10	...		39	34·25	3		9	32·1	R
13	...		39	34·45	3		9	29·9	R
14	...		39	34·56	3		9	32·5	R
15	...		39	34·60	3		9	31·5	R
19	...		39	33·98	3		9	32·5	R
20	...		39	34·27	3		9	32·2	R
24	...		39	35·06	3		9	33·5	R
28	...		39	34·23	3		9	33·8	R
390				*Anon.*					
July 28	8·0	19	39	48·78	...	125	27	35·5	R
30	8·0		39	48·69	...		27	36·3	R
Aug. 14	8·0		39	48·77	...		27	35·9	R
391				*Anon.*					
Aug. 18	7·0	19	40	25·79	...	128	8	5·9	R
Sep. 12	...		40	25·68	...		8	5·6	M
20	...		40	25·76	5		8	7·8	M
22	...		40	25·75	...		8	5·5	M
26	7·3		40	25·73	...		8	5·6	M
392				*Stone* 10658.					
Sep. 15	7·0	19	41	45·06	...	128	4	2·6	M
21	...		41	45·05	6		4	1·2	M
24	7·0		41	45·14	...		4	3·0	M
29	7·0		41	45·12	5		4	1·2	M
Oct. 1	7·0		41	44·91	3		4	2·2	R
5	7·0		41	44·80	...		3	59·6	R
393				*Stone* 10665.					
Oct. 11	6·7	19	42	49·63	...	141	16	10·4	R
13	6·7		42	49·73	...		16	12·5	R
18	6·7		42	49·80	...		16	11·3	R
19	6·7		42	49·86	...		16	11·7	R
20	6·7		42	49·78	...		16	10·6	M
394				*Taylor* 9112.					
July 28	...	19	43	53·70	...	130	10	9·2	R
30	...		43	53·59	...		10	9·8	R
395				*Stone* 10677.					
Aug. 25	...	19	43	59·76	...	127	37	47·6	R
Sep. 11	...		43	59·66	...		37	48·3	M
17	...		43	59·75	...		37	46·1	M
25	...		43	59·78	...		37	48·5	M
27	...		43	59·94	...		37	48·6	M
396				*Taylor* 9131.					
Sep. 26	...	19	47	16·69	3	148	13	53·3	M
Oct. 4	...		47	16·48	...		13	50·4	R
397				*Anon.*					
Aug. 9	8·5	19	48	9·48	...	131	59	53·2	R
Sep. 15	...		48	9·76	...		59	52·9	M
398				*Anon.*					
Sep. 20	...	19	50	19·15	6	132	59	35·1	M
399				*Stone* 10720.					
Oct. 5	...	19	50	30·01	...	126	59	46·3	R
9	...		50	30·12	...		59	51·3	R
17	...		50	30·24	...		59	49·6	R
18	...		50	30·03	...		59	47·9	R
19	...		50	30·21	...		59	49·0	R
400				*Stone* 10727.					
Sep. 27	7·0	19	51	34·65	...	120	51	1·9	M
28	6·0		51	34·64	5		51	2·5	M
29	7·0		51	34·41	...		51	2·2	M
Oct. 1	6·7		51	34·58	...		51	3·2	R
4	6·7		51	34·67	...		51	0·5	R
401				*Stone* 10739.					
Oct. 11	6·5	19	52	18·13	...	133	21	38·5	R
13	6·5		52	18·13	...		21	40·3	R
20	6·5		52	17·98	...		21	38·5	M
22	6·5		52	18·07	...		21	38·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	*m.*	*s.*		°	′	″	
402	*Stone* 10752.								
Aug. 28	8·5	19	53	51·52	...	126	59	56·0	R
Sep. 15	7·0		53	51·54	5		59	55·2	M
19	...		53	51·70	6		59	58·9	M
22	7·0		53	51·60	...		59	56·8	M
24	...		53	51·54	4		59	57·8	M
403	*Anon.*								
Aug. 16	8·0	19	54	29·56	...	130	18	18·3	R
404	*Taylor* 9195.								
Oct. 1	...	19	55	46·78	...	128	15	46·9	R
6	...		55	46·79	...		15	44·3	R
9	...		55	46·71	...		15	45·3	R
10	..		55	46·69	...		15	46·1	R
17	...		55	46·96	...		15	47·4	R
405	*Anon.*								
Aug. 13	9·0	19	56	54·59	...	131	48	51·0	R
14	9·0		56	54·60	...		48	50·7	R
18	9·0		56	54·87	...		48	50·5	R
Sep. 14	9·0		56	54·71	...		48	49·7	M
406	*Taylor* 9213.								
Oct. 11	...	19	58	21·94	...	145	20	58·5	R
13	...		58	21·79	...		21	1·3	R
18	...		58	21·72	...		21	0·0	R
19	...		58	21·90	...		20	59·7	R
22	...		58	21·96	...		21	0·7	R
407	*Anon.*								
Aug. 8	9·5	19	58	30·55	...	148	10	38·2	R
9	9·5		58	30·44	...		10	36·4	R
408	*Stone* 10792.								
Sep. 26	...	19	59	43·92	6	125	52	0·6	M
27	...		59	43·76	...		52	0·0	M
28	...		59	43·83	5		51	59·5	M
29	...		59	43·73	...		51	59·8	M
Oct. 5	...		59	43·78	...		51	58·6	R
409	*Stone* 10797.								
Oct. 9	...	20	0	38·85	...	137	24	11·2	R
10	...		0	38·82	...		24	11·4	R
20	...		0	38·94	...		24	13·5	M
410	*Stone* 10823.								
Oct. 11	6·7	20	5	6·49	...	138	8	38·5	R
13	6·7		5	6·55	...		8	39·6	R
18	6·7		5	6·55	...		8	37·2	R
19	6·7		5	6·59	...		8	38·4	R
22	6·7		5	6·74	...		8	38·8	R
411	65 *Aquilæ θ*								
Aug. 9	...	20	5	15·98	...	91	10	4·3	R
10	...		5	16·00	...		10	4·4	R
11	...		5	16·04	...		10	3·7	R
13	...		5	16·03	...		10	2·4	R
14	...		5	15·90	...		10	2·1	R
16	...		5	16·00	...		10	2·4	R
18	...		5	15·99	...		10	3·2	R
25	...		5	16·04	...		10	2·6	R
28	...		5	16·00	...		10	3·7	R
Sep. 3	...		5	16·09	...		10	3·3	M
25	...		5	16·03	...		10	2·8	M
26	...		5	16·02	...		10	4·9	M
27	...		5	16·10	...		10	5·6	M
28	...		5	16·02	...		10	5·9	M
29	...		5	16·12	...		10	3·4	M
Oct. 1	...		5	16·00	...		10	2·7	R
3	...		5	16·03	...		10	1·4	R
4	...		5	15·97	...		10	1·8	R
5	...		5	15·98	...		10	1·6	R
6	...		5	15·94	...		10	1·0	R
412	*Taylor* 9303.								
Oct. 10	...	20	7	59·36	...	117	22	51·7	R
17	...		7	59·45	...		22	52·9	R
413	*Stone* 10840.								
Oct. 5	...	20	8	46·35	...	126	48	33·1	R
9	...		8	46·38	...		48	33·2	R
20	...		8	46·54	...		48	35·2	M
23	...		8	46·50	...		48	35·6	R
25	...		8	46·68	...		48	35·4	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
414 *Stone* 10858.									
Aug. 8	7·0	20	10	48·27	...	134	53	16·2	R
11	7·0		10	48·19	...		53	14·5	R
Sep. 4	7·0		10	47·98	...		53	11·0	M
415 *Stone* 10859.									
Sep. 27	7·0	20	10	52·80	...	137	56	12·5	M
29	6·7		10	52·70	4		56	11·6	M
Oct. 1	6·7		10	52·63	3		56	11·9	R
6	6·7		10	52·73	...		56	9·0	R
11	6·7		10	52·57	...		56	12·4	R
416 *Taylor* 9343.									
Oct. 18	6·7	20	13	10·81	...	140	21	32·9	R
23	6·7		13	10·90	...		21	33·8	R
24	6·7		13	10·98	...		21	33·6	R
25	6·7		13	11·03	...		21	33·7	R
417 *Stone* 10884.									
Sep. 5	...	20	13	48·99	...	123	6	21·7	M
10	...		13	48·88	4		6	17·9	M
11	...		13	49·09	5		6	19·3	M
14	...		13	48·90	6		6	21·2	M
15	...		13	48·86	...		6	21·6	M
418 *Anon.*									
Aug. 16	8·0	20	14	42·91	...	133	19	33·0	R
Sep. 17	...		14	42·91	5		19	31·8	M
22	...		14	42·96	...		19	30·2	M
25	...		14	43·11	5		19	31·2	M
26	8·0		14	43·07	...		19	31·2	M
419 *Taylor* 9370.									
Oct. 8	...	20	15	55·43	5	132	47	51·8	R
9	...		15	55·57	...		47	49·0	R
10	...		15	55·55	...		47	49·3	R
17	...		15	55·68	...		47	50·2	R
19	...		15	55·64	...		47	51·2	R
420 *R. P. L.* 138.									
Aug. 4	...	20	16	18·81	3	5	40	32·0	R
Sep. 4	...		16	19·55	3		40	31·8	M
14	...		16	18·00	3		40	30·0	M
15	...		16	17·95	3		40	29·5	M
28	...		16	16·91	3		40	29·7	M
421 *Anon.*									
Sep. 17	...	20	20	6·49	...	130	23	42·1	M
27	8·0		20	6·53	4		23	43·5	M
29	7·5		20	6·65	...		23	43·6	M
422 *Taylor* 9415.									
Oct. 8	...	20	21	15·81	...	125	58	48·1	R
9	...		21	15·99	...		58	50·9	R
10	...		21	15·99	...		58	50·2	R
11	...		21	16·06	...		58	51·1	R
13	...		21	16·19	...		58	52·1	R
423 *Stone* 10939.									
Oct. 17	6·0	20	23	46·65	...	119	30	12·7	R
18	6·3		23	46·93	...		30	10·4	R
19	6·3		23	46·70	...		30	12·7	R
20	6·5		23	46·65	...		30	11·3	M
22	6·3		23	46·70	...		30	12·5	R
424 *Taylor* 9464.									
Oct. 10	7·0	20	26	40·72	...	112	37	36·1	R
11	7·0		26	40·77	...		37	37·1	R
23	7·0		26	40·93	...		37	37·2	R
25	7·0		26	40·64	...		37	37·6	R
425 *R. P. L.* 143.									
July 28	...	20	26	58·79	3	5	14	40·0	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
426		2 *Delphini* ε							
Sep. 4	...	20	27	37·43	...	79	5	37·6	M
5	...		27	37·33	...		5	34·1	M
10	...		27	37·39	...		5	36·4	M
11	...		27	37·40	...		5	37·5	M
12	...		27	37·32	...		5	37·5	M
13	...		27	37·22	...		5	37·8	M
14	...		27	37·26	...		5	37·7	M
15	...		27	37·37	...		5	37·5	M
17	...		27	37·41	...		5	36·7	M
19	...		27	37·37	...		5	37·3	M
20	...		27	37·30	...		5	38·5	M
21	...		27	37·25	...		5	37·0	M
22	...		27	37·18	...		5	35·8	M
24	...		27	37·38	...		5	39·1	M
25	...		27	37·26	...		5	37·0	M
26	...		27	37·29	...		5	38·6	M
27	...		27	37·27	...		5	39·0	M
28	...		27	37·33	...		5	38·4	M
29	...		27	37·33	...		5	37·4	M
Oct. 1	...		27	37·26	...		5	38·3	R
3	...		27	37·28	...		5	36·3	R
4	...		27	37·33	...		5	34·8	R
5	...		27	37·34	...		5	34·9	R
6	...		27	37·17	...		5	36·3	R
8	...		27	37·36	...		5	37·6	R
427		*Stone* 11003.							
Oct. 9	...	20	32	23·46	4	126	26	32·3	R
19	...		32	23·52	...		26	34·4	R
20	...		32	23·23	...		26	32·9	M
23	...		32	23·51	6		26	33·1	R
24	..		32	23·47	...		26	31·8	R
428		*Taylor* 9519.							
Sep. 4	...	20	33	34·17	5	132	32	46·5	M
15	...		33	34·17	...		32	47·9	M
429		*Taylor* 9544.							
Oct. 5	...	20	35	13·01	...	129	58	29·9	R
6	...		35	13·03	...		58	30·6	R
Oct. 11	...	20	35	12·87	...	129	58	32·3	R
25	...		35	13·06	...		58	34·4	R
Nov. 6	...		35	13·08	...		58	32·8	R
430		*Taylor* 9561.							
Oct. 10	...	20	37	14·09	...	126	14	53·6	R
19	...		37	14·27	...		14	54·1	R
22	...		37	14·49	...		14	52·8	R
24	...		37	14·34	...		14	55·5	R
431		*Anon.*							
Sep. 25	...	20	37	38·58	4	126	31	44·9	M
26	8·0		37	38·24	...		31	44·1	M
27	...		37	38·32	..		31	44·2	M
28	...		37	38·39	6		31	44·8	M
432		*Taylor* 9573.							
Oct. 18	...	20	39	21·06	...	136	16	48·8	R
23	...		39	21·14	...		16	49·7	R
433		2 *Aquarii* ε							
Sep. 3	...	20	41	20·45	...	99	55	24·1	M
4	...		41	20·43	...		55	23·3	M
5	...		41	20·50	...		55	24·5	M
10	...		41	20·38	...		55	23·7	M
11	...		41	20·39	...		55	23·8	M
12	...		41	20·51	...		55	23·6	M
13	...		41	20·43	..		55	23·4	M
14	...		41	20·48	...		55	24·2	M
15	...		41	20·49	...		55	25·4	M
17	...		41	20·44	...		55	23·1	M
19	...		41	20·36	...		55	23·3	M
20	...		41	20·37	...		55	25·3	M
21	...		41	20·36	...		55	22·8	M
22	...		41	20·59	...		55	23·9	M
24	...		41	20·57	...		55	24·3	M
Oct. 1	...		41	20·50	..		55	22·7	R
3	...		41	20·44	...		55	21·6	R
4	...		41	20·45	...		55	23·3	R
5	...		41	20 40	...		55	24·1	R
6	...		41	20·49	...		55	21·9	R
8	...		41	20·43	...		55	23·0	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
434		*Anon.*							
Sep. 29	...	20	41	44·10	...	132	8	36·9	M
435		*Taylor* 9602.							
Oct. 9	6·3	20	42	20·49	...	116	12	42·5	R
10	6·3		42	20·43	...		12	44·0	R
11	6·3		42	20·61	...		12	42·6	R
19	6·3		42	20·61	...		12	44·4	R
22	6·3		42	20·66	...		12	42·7	R
436		*Stone* 11081.							
Sep. 25	...	20	43	59·40	...	131	20	28·7	M
437		*Stone* 11091.							
Oct. 23	...	20	44	40·91	...	142	9	10·9	R
438		*Anon.*							
Sep. 26	8·0	20	45	22·48	...	135	45	24·7	M
27	8·0		45	22·39	...		45	25·2	M
Oct. 4	8·0		45	22·37	...		45	22·4	R
439		*Stone* 11103.							
Aug. 28	...	20	46	13·44	...	141	10	4·7	R
Sep. 4	...		46	13·41	...		10	1·0	M
12	...		46	13·35	...		9	59·0	M
21	...		46	13·39	5		10	0·2	M
22	...		46	13·32	...		9	58·9	M
440		*Stone* 11115.							
Oct. 17	...	20	47	5·44	...	118	22	0·0	R
Nov. 5	...		47	5·59	3		21	58·4	M
441		*Stone* 11120.							
Oct. 11	...	20	47	24·35	...	145	39	54·7	R
18	...		47	24·38	...		39	54·4	R
19	...		47	24·40	...		39	55·9	R
24	...		47	24·48	...		39	54·6	R
25	...		47	24·39	...		39	57·5	R
442		*Anon.*							
Sep. 14	8·5	20	52	32·77	5	129	10	31·8	M
15	...		52	32·71	...		10	33·4	M
443		*Stone* 11150.							
Sep. 12	...	20	53	34·41	...	129	11	31·8	M
444		*Stone* 11156.							
Oct. 8	6·7	20	54	13·32	...	123	21	7·2	R
9	6·7		54	13·50	...		21	5·9	R
10	6·7		54	13·52	...		21	6·2	R
11	6·7		54	13·39	...		21	5·1	R
18	6·7		54	13·33	...		21	8·2	R
445		*Stone* 11175.							
Aug. 28	8·0	20	56	1·50	...	142	21	24·3	R
Oct. 6	7·0		56	1·31	...		21	20·5	R
17	7·0		56	1·35	...		21	22·2	R
20	7·0		56	1·46	...		21	21·1	M
22	7·0		56	1·64	...		21	22·4	R
446		*Stone* 11186.							
Oct. 5	7·0	20	57	44·20	...	127	41	29·1	R
23	7·0		57	44·27	...		41	32·2	R
447		*Stone* 11191.							
Oct. 24	7·0	20	58	12·54	..	138	59	25·9	R
25	7·0		58	12·45	...		59	27·3	R
Nov. 5	...		58	12·42	...		59	25·0	M
6	7·0		58	12·63	...		59	24·4	M
448		23 *Capricorni* θ							
Sep. 3	...	20	59	22·04	...	107	41	48·9	M
12	...		59	22·04	...		41	49·0	M
13	...		59	22·22	5		41	50·0	M
14	...		59	22·13	...		41	51·7	M
15	...		59	22·03	...		41	50·6	M
17	...		59	22·02	...		41	50·5	M
19	...		59	22·15	...		41	50·1	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
Sep. 20	...	20	59	22·21	...	107	41	52·5	M
21	...		59	22·28	...		41	50·8	M
22	...		59	22·10	...		41	50·4	M
24	...		59	22·01	...		41	50·6	M
25	...		59	21·97	...		41	49·9	M
26	...		59	22·16	...		41	50·6	M
27	...		59	22·12	...		41	50·0	M
28	...		59	22·01	...		41	49·7	M
29	...		59	22·13	...		41	51·5	M
Oct. 1	...		59	22·14	...		41	50·7	R
9	...		59	22·11	...		41	48·3	R
10	...		59	22·15	...		41	49·4	R
11	...		59	22·11	...		41	49·5	R
449 *Anon.*									
Oct. 18	8·0	21	0	13·05	...	150	59	40·0	R
450 *Stone* 11227.									
Oct. 4	6·7	21	1	58·59	...	134	40	54·8	R
5	6·7		1	58·60	...		40	54·4	R
20	6·7		1	58·60	...		40	55·1	M
22	6·7		1	58·88	...		40	56·8	R
23	6·7		1	58·78	...		40	55·3	R
451 *Taylor* 9809.									
•Sep. 26	...	21	5	33·56	...	129	54	2·8	M
27	...		5	33·58	...		54	2·3	M
29	...		5	33·77	...		54	1·8	M
Oct. 1	...		5	33·64	...		54	1·9	R
9	...		5	33·70	...		54	1·0	R
452 *Taylor* 9843.									
Sep. 28	6·5	21	9	53·87	...	139	12	11·4	M
29	7·0		9	53·98	...		12	10·7	M
Oct. 4	6·7		9	53·99	...		12	9·7	R
5	6·7		9	53·98	...		12	10·8	R
11	6·7		9	53·87	...		12	13·1	R
453 *Taylor* 9889.									
Sep. 26	6·5	21	14	52·22	...	119	39	40·4	M
Oct. 3	6·7		14	52·10	...		39	41·4	R
4	6·7		14	52·12	...		39	41·0	R
5	6·7		14	52·09	...		39	41·7	R
18	6·7		14	52·00	...		39	39·4	R
454 33 *Capricorni.*									
Sep. 28	...	21	17	31·26	...	111	20	54·8	M
29	...		17	31·23	...		20	48·7	M
Oct. 1	...		17	31·17	...		20	52·2	R
11	...		17	31·26	...		20	49·3	R
19	...		17	31·45	...		20	50·1	R
455 *Stone* 11367.									
Sep. 26	7·0	21	21	39·61	5	152	40	33·3	M
27	...		21	39·54	5		40	34·1	M
Oct. 18	6·7		21	39·51	...		40	33·8	R
19	6·7		21	39·71	...		40	34·4	R
20	6·7		21	39·46	...		40	34·3	M
456 *R. P. L.* 149.									
Sep. 4	...	21	22	43·22	3	3	26	57·1	M
14	...		22	45·06	2		26	56·4	M
457 *Stone* 11390.									
Sep. 28	6·0	21	25	48·17	...	135	21	56·3	M
29	6·0		25	48·20	...		21	54·1	M
Oct. 4	6·0		25	48·35	...		21	51·8	R
5	6·0		25	48·33	...		21	52·9	R
6	6·0		25	48·32	...		21	54·3	R
458 *Stone* 11403.									
Sep. 26	6·0	21	28	41·66	5	155	20	47·2	M
27	...		28	41·41	...		20	49·2	M
Oct. 3	6·0		28	41·48	...		20	48·8	R
11	6·0		28	41·44	...		20	51·0	R
18	6·0		28	41·56	...		20	48·6	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	*m.*	*s.*		°	′	″	
459	*Stone* 11428.								
Sep. 28	...	21	32	3·66	...	124	12	14·9	M
29	...		32	3·83	...		12	15·6	M
Oct. 1	...		32	3·71	4		12	16·0	R
4	...		32	3·75	...		12	13·2	R
5	...		32	3·68	...		12	14·5	R
460	*Stone* 11434.								
Sep. 10	...	21	32	25·98	...	133	39	29·6	M
12	...		32	25·73	...		39	34·4	M
461	*Taylor* 10073.								
Sep. 26	...	21	36	6·32	...	146	0	23·3	M
27	...		36	6·33	...		0	24·2	M
Oct. 3	...		36	6·49	...		0	23·4	R
4	...		36	6·46	...		0	23·4	R
5	...		36	6·44	...		0	24·4	R
462	*Stone* 11470.								
Sep. 10	...	21	37	46·38	5	128	58	33·2	M
17	...		37	46·29	...		58	37·8	M
22	...		37	46·44	...		58	34·9	M
463	8 *Pegasi* ε								
Oct. 9	...	21	38	26·37	...	80	39	36·8	R
10	...		38	26·35	...		39	37·9	R
11	...		38	26·43	...		39	38·0	R
13	...		38	26·44	..		39	39·0	R
17	...		38	26·45	...		39	39·0	R
18	...		38	26·39	...		39	37·9	R
19	...		38	26·45	...		39	38·6	R
20	...		38	26·27	...		39	38·1	M
22	...		38	26·33	...		39	38·6	R
23	...		38	26·40	...		39	38·1	R
24	...		38	26·39	...		39	38·3	R
25	...		38	26·39	...		39	36·5	R
Nov. 5	...		38	26·35	...		39	40·4	M
6	...		38	26·43	...		39	37·9	R
7	...		38	26·34	...		39	38·3	M
9	...		38	26·26	...		39	38·7	M
10	...		38	26·35	...		39	40·8	M
12	...		38	26·29	...		39	40·6	M
14	...		38	26·25	...		39	40·2	M
15	...		38	26·18	...		39	38·1	M
464	*Taylor* 10109.								
Sep. 28	...	21	40	38·58	...	137	50	3·9	M
29	...		40	38·73	...		50	2·9	M
Oct. 4	...		40	38·92	...		50	2·9	R
5	...		40	39·00	4		50	3·6	R
6	...		40	38·65	...		50	2·5	R
465	*Taylor* 10164.								
Sep. 26	...	21	48	14·51	...	143	0	51·4	M
27	...		48	14·52	3		0	55·5	M
Oct. 3	...		48	14·73	...		0	53·9	R
4	...		48	14·66	...		0	53·9	R
5	...		48	14·60	...		0	54·3	R
466	*Taylor* 10172.								
Sep. 28	...	21	49	19·97	...	127	48	27·3	M
29	...		49	20·04	...		48	28·4	M
Oct. 1	...		49	19·96	...		48	26·8	R
6	...		49	19·88	4		48	26·1	R
9	...		49	19·93	...		48	26·2	R
467	*Stone* 11555.								
Oct. 11	6·7	21	51	15·86	...	134	37	4·9	R
18	6·7		51	15·79	...		37	4·7	R
19	6·7		51	15·90	...		37	6·7	R
20	6·7		51	15·78	4		37	5·7	M
22	6·7		51	16·02	...		37	6·5	R
468	*Anon.*								
Sep. 12	...	21	52	5·66	5	132	36	2·7	M
15	8·0		52	5·39	...		36	1·9	M
17	8·5		52	5·54	...		36	2·4	M
469	*Taylor* 10192.								
Oct. 3	...	21	52	13·17	...	128	57	10·7	R
23	...		52	13·45	...		57	11·9	R
24	...		52	13·35	...		57	12·2	R
25	...		52	13·23	...		57	13·3	R
Nov. 6	...		52	13·13	...		57	12·1	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883.			No. of Wires.	Mean Polar Distance 1883.			Observer.
		h.	m.	s.		°	′	″	
470 *Stone* 11574.									
Sep. 29	6·0	21	53	59·64	...	127	6	58·2	M
Oct. 4	6·7		53	59·58	...		6	55·6	R
5	6·7		53	59·52	...		6	56·2	R
6	6·7		53	59·55	4		6	55·9	R
9	6·7		53	59·40	...		6	56·8	R
471 *Taylor* 10232.									
Sep. 26	6·0	21	57	57·35	...	117	23	18·9	M
28	6·0		57	57·36	...		23	19·3	M
Oct. 1	6·0		57	57·23	...		23	18·4	R
3	6·0		57	57·20	...		23	17·2	R
5	6·0		57	57·23	...		23	16·2	R
13	6·0		57	57·42	...		23	18·6	R
472 *Stone* 11601.									
Sep. 12	...	21	58	48·92	6	134	31	59·3	M
15	7·0		58	48·82	...		31	58·6	M
473 34 *Aquarii a*									
Oct. 18	...	21	59	46·37	...	90	53	15·2	R
19	...		59	46·33	...		53	16·6	R
20	...		59	46·31	...		53	16·3	M
22	...		59	46·33	...		53	16·4	R
23	...		59	46·42	...		53	14·3	R
24	...		59	46·34	...		53	15·7	R
25	...		59	46·35	...		53	16·8	R
Nov. 5	...		59	46·32	...		53	16·9	M
6	...		59	46·37	...		53	15·6	R
7	...		59	46·41	...		53	16·3	M
9	...		59	46·36	...		53	15·7	M
10	...		59	46·44	...		53	18·6	M
12	...		59	46·45	...		53	17·4	M
13	...		59	46·35	...		53	18·9	M
14	...		59	46·56	...		53	17·4	M
15	...		59	46·47	...		53	17·1	M
16	...		59	46·45	...		53	18·8	M
20	...		59	46·39	...		53	17·6	M
21	...		59	46·50	...		53	18·3	M
23	...		59	46·50	...		53	19·1	M
26	...		59	46·39	...		53	18·6	M
474 *Stone* 11610.									
Sep. 29	...	22	0	9·13	...	120	11	11·6	M
Oct. 4	...		0	8·94	...		11	10·1	R
6	...		0	9·14	...		11	9·6	R
9	...		0	9·01	5		11	9·2	R
11	...		0	9·08	...		11	10·8	R
475 43 *Aquarii θ*									
Oct. 11	...	22	10	39·49	...	98	21	55·9	R
13	...		10	39·43	...		21	56·1	R
17	...		10	39·44	...		21	56·1	R
18	...		10	39·47	...		21	55·4	R
19	...		10	39·47	...		21	55·9	R
20	...		10	39·52	...		21	57·0	M
22	...		10	39·52	...		21	56·3	R
23	...		10	39·44	...		21	55·1	R
24	...		10	39·48	...		21	54·4	R
25	...		10	39·52	...		21	57·1	R
Nov. 5	...		10	39·57	...		21	56·7	M
6	...		10	39·45	...		21	55·0	R
7	...		10	39·50	...		21	56·5	M
9	...		10	39·62	...		21	55·3	M
10	...		10	39·45	...		21	57·8	M
12	...		10	39·58	...		21	59·6	M
13	...		10	39·53	...		21	58·0	M
14	...		10	39·46	...		21	57·0	M
15	...		10	39·51	...		21	56·6	M
16	...		10	39·46	...		21	56·9	M
20	...		10	39·65	...		21	54·5	M
21	...		10	39·45	...		21	56·0	M
23	...		10	39·51	...		21	56·2	M
476 48 *Aquarii γ*									
Sep. 26	...	22	15	36·73	...	91	58	35·0	M
27	...		15	36·70	...		58	36·3	M
28	...		15	36·83	...		58	34·9	M
29	...		15	36·59	...		58	35·5	M
Oct. 3	...		15	36·73	...		58	33·2	R
4	...		15	36·72	...		58	33·5	R
5	...		15	36·73	...		58	33·2	R
6	...		15	36·70	...		58	34·1	R
8	...		15	36·68	...		58	33·9	R
9	...		15	36·72	...		58	33·7	R

Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
477		73 *Aquarii* λ							
Sep. 24	...	22	46	30·40	...	98	12	7·8	M
25	...		46	30·66	...		12	5·3	M
Oct. 9	...		46	30·51	...		12	6·3	R
10	...		46	30·50	...		12	6·3	R
13	...		46	30·49	...		12	5·3	R
17	...		46	30·47	...		12	6·4	R
18	...		46	30·49	...		12	6·9	R
19	...		46	30·47	...		12	7·3	R
20	...		46	30·62	...		12	7·5	M
Nov. 26	...		46	30·51	...		12	10·0	M
29	...		46	30·47	...		12	4·0	M
30	...		46	30·47	...		12	7·7	M
Dec. 4	...		46	30·48	...		12	6·3	R
5	...		46	30·48	...		12	6·0	R
6	...		46	30·37	...		12	5·8	R
478		54 *Pegasi a, Markab.*							
Oct. 22	...	22	58	56·01	...	75	25	26·0	R
23	...		58	55·95	...		25	26·5	R
24	...		58	55·97	...		25	26·9	R
25	...		58	55·94	...		25	27·0	R
Nov. 13	...		58	55·84	...		25	29·6	M
14	...		58	55·90	...		25	29·1	M
15	...		58	56·03	...		25	28·1	M
16	...		58	55·85	...		25	31·2	M
Nov. 20	...	22.	58	55·89	...	75	25	27·2	M
21	...		58	55·85	...		25	26·4	M
23	...		58	55·83	...		25	29·3	M
479		6 *Piscium* γ							
Nov. 26	...	23	11	5·82	...	87	21	26·5	M
27	...		11	6·05	...		21	25·0	M
29	...		11	5·88	...		21	22·3	M
30	...		11	5·94	...		21	24·9	M
Dec. 4	...		11	5·90	...		21	23·4	R
5	...		11	5·91	...		21	24·1	R
6	...		11	5·86	...		21	25·8	R
7	...		11	5·90	..		21	24·0	R
480		*R. P. L.* 158.							
Oct. 18	...	23	27	47·02	3	8	20	17·0	R
19	...		27	49·73	3		20	16·6	R
22	...		27	50·18	3		20	16·6	R
23	...		27	49·90	3		20	15·8	R
24	...		27	49·56	3		20	18·0	R
25	...		27	49·64	3		20	18·0	R
Nov. 9	...		27	50·12	3		20	16·8	M
12	...		27	51·09	3		20	15·5	M
13	...		27	50·42	3		20	17·0	M
14	...		27	49·10	3		20	17·6	M

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1883

REDUCED TO JANUARY 1 OF THAT YEAR

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
1	Stone 8	7·0	4	0	1	22·50	116	0	13·7	5	0·89
2	6 Ceti	4·9	...	0	5	18·41	106	6	37·5	5	0·91
3	Stone 63	6·3	...	0	7	48·44	116	56	12·0	5	0·90
4	Taylor 37	5·9	...	0	10	13·68	122	5	44·5	5	0·91
5	8 Ceti ι	3·6	...	0	13	27·81	99	28	20·0	7	0·96
6	Stone 109	7·1	5	0	14	18·77	126	33	10·4	5	0·89
7	Taylor 78	6·8	5	0	18	31·00	92	52	0·0	5	0·91
8	Stone 158	6·5	...	0	21	22·79	116	11	41·0	5	0·90
9	Taylor 101	5·9	...	0	22	40·15	130	33	44·6	5	0·93
10	Taylor 115	5·2	...	0	24	31·68	114	26	7·7	5	0·88
11	Stone 237	7·0	4	0	32	53·40	136	32	49·6	5	0·88
12	Stone 240	7·0	5	0	33	16·91	133	56	19·4	5	0·96
13	Taylor 181	6·4	...	0	34	16·83	135	26	24·7	1	0·84
14	Taylor 215	6·4	...	0	39	25·06	133	18	52·2	5	0·88
15	W. B. E. O. 658	9·1	1	0	39	36·26	88	55	54·4	1	0·92
16	63 Piscium δ	4·6	...	0	42	36·69	83	3	6·6	7	0·94
17	...	9·0	1	0	42	38·72	89	0	20·4	1	0·91
18	...	9·0	1	0	43	53·51	88	58	5·9	1	0·93
19	Taylor 252	6·7	...	0	44	34·42	134	1	58·7	5	0·95
20	Stone 342	5·8	...	0	46	55·90	114	38	37·3	5	0·88
21	Stone 365	6·3	...	0	50	14·91	118	24	34·4	5	0·90
22	R. P. L. 10	6·6	...	0	51	27·96	1	36	16·7	2	0·86
23	...	7·0	1	0	52	8·16	131	53	18·5	1	0·86
24	2 Ursæ Minoris	4·5	...	0	52	57·38	4	22	15·0	1	0·01
25	Stone 392	5·6	...	0	55	50·20	129	32	56·5	5	0·88
26	R. P. L. 14	6·2	...	0	56	36·82	3	28	41·6	1	0·99
27	Stone 407	5·9	...	0	57	32·66	137	1	37·4	5	0·90
28	30 Ceti	5·8	...	1	1	58·10	100	24	42·7	5	0·89
29	43 Andromedæ β	2·2	...	1	3	10·92	54	59	58·7	2	0·01
30	Taylor 391	6·6	...	1	6	51·47	121	25	19·1	5	0·89
31	...	8·5	...	1	9	4·03	145	51	44·7	1	0·86
32	...	9·0	...	1	10	7·75	124	38	59·5	2	0·00
33	Stone 489	6·7	...	1	10	57·78	132	37	39·3	5	0·96
34	...	8·5	4	1	13	7·73	130	43	13·8	4	0·71
35	Taylor 428	6·9	...	1	13	33·16	133	56	58·4	5	0·90

15—17—18.—Comparison stars for Mars in 1862.

22.—Groombridge 144.

26.—Groombridge 195.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	Stone 8	+ 3·0684	− 0·0126	...	− 20·054	+ 0·011	...	...
2	6 Ceti	+ 3·0634	− 0·0064	− 0·008	− 20·048	+ 0·019	+ 0·26	3222
3	Stone 63	+ 3·0492	− 0·0127	...	− 20·042	+ 0·023	...	...
4	Taylor 37	+ 3·0350	− 0·0158	...	− 20·034	+ 0·027	...	...
5	8 Ceti ι	+ 3·0593	− 0·0023	− 0·003	− 20·019	+ 0·034	+ 0·03	14
6	Stone 109	+ 3·0105	− 0·0186	...	− 20·015	+ 0·035	...	...
7	Taylor 78	+ 3·0669	+ 0·0014	...	− 19·989	+ 0·044	...	...
8	Stone 158	+ 3·0110	− 0·0111	...	− 19·966	+ 0·049	...	...
9	Taylor 101	+ 2·9594	− 0·0205	...	− 19·956	+ 0·051	...	...
10	Taylor 115	+ 3·0074	− 0·0097	...	− 19·939	+ 0·055	...	...
11	Stone 237	+ 2·8705	− 0·0233	...	− 19·848	+ 0·069	...	...
12	Stone 240	+ 2·8859	− 0·0213	...	− 19·843	+ 0·069	...	...
13	Taylor 181	+ 2·8700	− 0·0223	− 0·002	− 19·829	+ 0·071	+ 0·05	Stone.
14	Taylor 215	+ 2·8564	− 0·0198	...	− 19·757	+ 0·079	...	...
15	W. B. E. O. 658 ...	+ 3·0767	+ 0·0046	...	− 19·753	+ 0·084	...	...
16	63 Piscium δ... ...	+ 3·1024	+ 0·0079	+ 0·004	− 19·709	+ 0·091	+ 0·04	85
17	... ...	+ 3·0767	+ 0·0047	...	− 19·706	+ 0·089	...	...
18	... ...	+ 3·0771	+ 0·0048	...	− 19·687	+ 0·092	...	...
19	Taylor 252	+ 2·8225	− 0·0194	...	− 19·675	+ 0·087	...	...
20	Stone 342	+ 2·9477	− 0·0078	...	− 19·633	+ 0·095	...	...
21	Stone 365	+ 2·9150	− 0·0095	...	− 19·574	+ 0·100	...	...
22	R. P. L. 10	+ 13·6992	+ 8·2321	+ 0·153	− 19·550	+ 0·453	+ 0·03	65
23	... ...	+ 2·8019	− 0·0167	...	− 19·537	+ 0·099	...	...
24	2 Ursæ Minoris ...	+ 7·0783	+ 1·3756	+ 0·068	− 19·521	+ 0·244	+ 0·01	92
25	Stone 392	+ 2·8060	− 0·0148	...	− 19·462	+ 0·106	...	...
26	R. P. L. 14	+ 8·4505	+ 2·1474	+ 0·054	− 19·445	+ 0·308	+ 0·02	95
27	Stone 407	+ 2·7158	− 0·0187	...	− 19·425	+ 0·106	..	...
28	30 Ceti	+ 3·0068	+ 0·0001	+ 0·009	− 19·327	+ 0·124	− 0·01	135
29	43 Andromedæ β ...	+ 3·3272	+ 0·0286	+ 0·014	− 19·297	+ 0·139	+ 0·08	140
30	Taylor 391	+ 2·8375	− 0·0092	...	− 19·206	+ 0·126	...	...
31	.. ..	+ 2·4871	− 0·0203	...	− 19·150	+ 0·115	...	...
32	... ...	+ 2·7940	− 0·0105	...	− 19·123	+ 0·130	...	...
33	Stone 489	+ 2·6974	− 0·0141	...	− 19·100	+ 0·127	...	...
34	... ...	+ 2·7114	− 0·0128	...	− 19·042	+ 0·131	...	...
35	Taylor 428 ...	+ 2·6659	− 0·0142	...	− 19·030	+ 0·130	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
36	R. P. L. 18	7·9	...	1	13	38·26	2	2	52·1	1	0·99
37	1 Urs. Min. α (*Polaris*) ...	2·2	...	1	15	50·44	1	18	54·4	14	0·30
38	45 Ceti θ^1...	3·8	...	1	18	10·40	98	47	15·8	2	0·00
39	93 Piscium ρ	5·2	...	1	19	57·00	71	26	7·9	1	0·96
40	... ...	9·7	2	1	20	7·23	122	56	18·7	2	0·93
41	Taylor 487	6·2	...	1	24	51·91	116	48	46·4	5	0·88
42	99 Piscium η	3·7	...	1	25	13·35	75	15	27·9	4	0·99
43	Stone 596	7·8	...	1	25	30·56	128	23	39·5	5	0·55
44	Taylor 524	6·3	...	1	29	48·49	147	36	1·8	5	0·91
45	α Eridani (*Achernar*) ...	1·0	...	1	33	21·53	147	49	54·4	1	0·99
46	... ...	7·0	4	1	33	27·39	138	31	50·6	4	0·00
47	106 Piscium ν	4·7	...	1	35	20·52	85	6	18·0	1	0·99
48	... ...	8·0	4	1	36	20·07	149	14	24·8	4	0·71
49	110 Piscium o	4·4	...	1	39	12·89	81	25	55·1	10	0·91
50	Taylor 578	5·5	...	1	40	6·81	96	19	6·4	5	0·91
51	Stone 704	8·0	...	1	41	46·12	133	54	16·9	5	0·01
52	Taylor 616	6·1	...	1	46	22·07	140	47	8·4	5	0·89
53	6 Arietis β	2·8	...	1	48	10·61	69	45	51·7	13	0·95
54	Taylor 626	6·3	...	1	48	20·94	129	10	21·1	5	0·01
55	... ...	8·0	3	1	53	53·44	127	35	3·7	5	0·19
56	Stone 812	6·0	...	1	57	20·50	105	52	13·7	4	0·88
57	Stone 824	7·0	...	1	59	40·47	134	4	5·9	3	0·01
58	13 Arietis α	2·0	...	2	0	34·70	67	5	29·9	17	0·26
59	Stone 834	7·3	...	2	1	18·98	142	33	4·5	5	0·92
60	Stone 850	7·5	...	2	3	48·47	126	22	45·3	4	0·92
61	Stone 870	7·5	...	2	5	46·73	128	55	5·5	5	0·91
62	... ...	7·7	2	2	8	5·55	131	48	51·3	2	0·00
63	... ...	8·5	4	2	9	23·64	124	51	43·1	5	0·36
64	Taylor 750	6·1	...	2	9	47·80	131	42	43·9	1	0·01
65	67 Ceti	5·5	...	2	11	8·75	96	57	43·6	3	0·99
66	Stone 911	7·1	...	2	11	58·76	143	25	54·4	5	0·92
67	... ...	7·0	2	2	14	28·61	132	33	30·8	2	0·01
68	Stone 935	7·3	...	2	16	3·49	140	50	21·2	5	0·94
69	... ...	8·0	1	2	18	16·50	150	57	53·2	1	0·01
70	Stone 955	7·3	...	2	18	48·67	150	17	34·1	5	0·92

36.—Carrington 183.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
36	R. P. L. 18	+ 14·8806	+ 6·8872	...	− 19·028	+ 0·693	...	...
37	1 Ursæ Minoris α ...	+ 21·9951	+ 16·3900	+ 0·108	− 18·966	+ 1·050	+ 0·00	102
38	45 Ceti θ^1	+ 3·0032	+ 0·0018	− 0·007	− 18·899	+ 0·154	+ 0·20	184
39	93 Piscium ρ	+ 3·2259	+ 0·0163	− 0·006	− 18·846	+ 0·168	− 0·03	185
40	... ...	+ 2·7757	− 0·0086	...	− 18·841	+ 0·146	...	...
41	Taylor 487	+ 2·8279	− 0·0055	...	− 18·695	+ 0·157	...	...
42	99 Piscium η	+ 3·2001	+ 0·0141	− 0·000	− 18·683	+ 0·177	+ 0·00	203
43	Stone 596	+ 2·6862	− 0·0100	...	− 18·674	+ 0·150	...	...
44	Taylor 524	+ 2·2678	− 0·0140	...	− 18·533	+ 0·134	...	...
45	α Eridani	+ 2·2303	− 0·0128	+ 0·008	− 18·413	+ 0·187	+ 0·07	Stone
46	... ...	+ 2·4724	− 0·0120	...	− 18·410	+ 0·151	...	...
47	106 Piscium ν ...	+ 3·1186	+ 0·0091	− 0·003	− 18·344	+ 0·191	− 0·01	228
48	... ...	+ 2·1558	− 0·0114	...	− 18·308	+ 0·136	...	...
49	110 Piscium ο ...	+ 3·1569	+ 0·0111	+ 0·008	− 18·204	+ 0·200	− 0·06	232
50	Taylor 578	+ 3·0097	+ 0·0039	...	− 18·171	+ 0·193	...	...
51	Stone 704 ...	+ 2·5195	− 0·0095	...	− 18·109	+ 0·165	...	...
52	Taylor 616	+ 2·3390	− 0·0098	...	− 17·932	+ 0·160	...	...
53	6 Arietis β ...	+ 3·2965	+ 0·0183	+ 0·005	− 17·861	+ 0·226	+ 0·10	252
54	Taylor 626	+ 2·5764	− 0·0073	...	− 17·855	+ 0·179	...	...
55	... ...	+ 2·5819	− 0·0062	...	− 17·628	+ 0·187	...	...
56	Stone 812	+ 2·8862	+ 0·0010	...	− 17·482	+ 0·214	...	...
57	Stone 824	+ 2·4269	− 0·0067	...	− 17·381	+ 0·183	...	...
58	13 Arietis α	+ 3·3561	+ 0·0203	+ 0·013	− 17·342	+ 0·252	+ 0·13	287
59	Stone 834	+ 2·1910	− 0·0065	...	− 17·310	+ 0·168	...	...
60	Stone 850	+ 2·5658	− 0·0049	...	− 17·198	+ 0·199	...	...
61	Stone 870	+ 2·5092	− 0·0051	...	− 17·108	+ 0·198	...	...
62	... ...	+ 2·4383	− 0·0053	...	− 17·002	+ 0·195	...	...
63	.. ..	+ 2·5741	− 0·0040	...	− 16·943	+ 0·207	...	...
64	Taylor 750	+ 2·4330	− 0·0051	...	− 16·922	+ 0·197	...	...
65	67 Ceti	+ 2·9840	+ 0·0049	+ 0·004	− 16·859	+ 0·242	+ 0·11	321
66	Stone 911	+ 2·0909	− 0·0040	...	− 16·819	+ 0·173	...	...
67	... ...	+ 2·3926	− 0·0046	...	− 18·699	+ 0·200	...	...
68	Stone 935	+ 2·1541	− 0·0040	...	− 16·622	+ 0·182	...	...
69	... ...	+ 1·7058	+ 0·0037	...	− 16·513	+ 0·148	...	...
70	Stone 955	+ 1·7383	+ 0·0029	...	− 16·487	+ 0·151	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
71	... ...	7·5	2	2	19	52·27	134	51	27·9	2	0·00
72	78 Ceti ζ^2	4·4	...	2	21	56·29	82	3	52·4	1	1·00
73	... ...	7·0	3	2	22	8·49	131	53	37·3	4	0·49
74	... ...	8·0	...	2	23	18·01	135	34	15·8	1	0·01
75	Stone 994	7·3	...	2	24	31·01	126	27	49·7	1	0·00
76	Stone 1000	6·4	...	2	25	20·71	154	49	24·1	5	0·92
77	Lacaille 782	6·7	...	2	26	46·94	148	19	46·3	1	0·01
78	R. P. L. 26	8·0	...	2	27	31·12	3	27	48·7	2	0·67
79	... ...	7·7	3	2	28	16·63	149	23	20·7	3	0·01
80	77 Ceti	5·6	...	2	28	56·16	98	22	16·1	5	0·94
81	... ...	8·0	...	2	33	12·16	137	9	14·5	5	0·05
82	86 Ceti γ^2	3·6	...	2	37	14·27	87	15	29·0	2	0·99
83	Taylor 916	6·1	...	2	37	27·05	128	53	1·8	5	0·01
84	... ...	7·7	1	2	37	31·16	136	6	9·6	1	0·00
85	Taylor 926	7·5	...	2	39	2·37	115	59	32·7	5	0·92
86	Stone 1144	7·0	...	2	42	15·04	131	27	2·0	5	0·97
87	... ...	7·7	1	2	42	49·02	149	53	8·7	1	0·00
88	... ...	8·0	...	2	43	47·79	138	24	5·5	5	0·05
89	43 Arietis σ	5·5	...	2	45	1·96	75	24	2·0	7	0·96
90	... ...	8·5	...	2	46	1·22	132	42	37·4	5	0·03
91	Stone 1170	7·1	...	2	46	38·45	131	26	44·8	5	0·94
92	... ...	8·5	...	2	47	2·31	138	18	50·8	2	0·01
93	Stone 1192	8·0	...	2	49	36·37	135	5	2·8	5	0·97
94	Stone 1208	6·6	...	2	50	59·00	146	21	23·5	4	0·05
95	Stone 1212	8·0	...	2	51	42·14	141	44	2·3	4	0·96
96	Stone 1223	7·0	...	2	52	28·65	154	28	45·5	1	0·99
97	Taylor 1024	7·4	...	2	55	47·17	132	20	18·5	3	0·01
98	Taylor 1027	6·1	...	2	56	34·74	118	32	26·1	5	0·94
99	... ...	8·5	...	2	57	42·15	132	17	54·2	4	0·05
100	Stone 1263	6·3	...	2	58	55·64	137	26	2·9	5	0·97
101	Stone 1264	8·0	...	2	59	13·87	134	30	42·2	4	0·02
102	Taylor 1042	6·9	...	2	59	43·54	134	21	21·4	5	0·02
103	R. P. L. 33	5·8	...	3	4	48·88	5	30	24·5	2	0·95
104	57 Arietis δ	4·5	...	3	4	56·32	70	42	59·3	7	0·96
105	Stone 1342	7·3	...	3	9	50·79	130	41	31·7	2	0·00

78.—Carrington 352. 103.—Groombridge 595.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	″	″	″	
71	... ...	+ 2·3100	− 0·0040	...	− 16·434	+ 0·200	...	...
72	73 Ceti ξ²	+ 3·1805	+ 0·0117	+ 0·001	− 16·330	+ 0·276	+ 0·00	347
73	... ...	+ 2·3753	− 0·0038	...	− 16·320	+ 0·208	...	...
74	... ...	+ 2·2740	− 0·0035	...	− 16·260	+ 0·201	...	...
75	Stone 994	+ 2·4899	− 0·0028	...	− 16·197	+ 0·222	...	...
76	Stone 1000	+ 1·3873	+ 0·0138	...	− 16·155	+ 0·127	...	...
77	Lacaille 782	+ 1·7773	+ 0·0026	...	− 16·079	+ 0·161	...	...
78	R. P. L. 26	+ 16·3288	+ 3·7976	...	− 16·038	+ 1·436	...	...
79	... ...	+ 1·7104	+ 0·0047	...	− 16·002	+ 0·157	...	...
80	77 Ceti	+ 2·9533	+ 0·0051	...	− 15·966	+ 0·267	...	...
81	... ...	+ 2·1790	− 0·0020	...	− 15·739	+ 0·204	...	...
82	86 Ceti γ²	+ 3·1130	+ 0·0094	− 0·011	− 15·516	+ 0·294	+ 0·16	383
83	Taylor 916	+ 2·3886	− 0·0018	...	− 15·505	+ 0·228	...	...
84	... ...	+ 2·1908	− 0·0014	...	− 15·500	+ 0·209	...	...
85	Taylor 926	+ 2·6554	+ 0·0003	...	− 15·416	+ 0·254	...	...
86	Stone 1144	+ 2·3045	− 0·0015	...	− 15·234	+ 0·225	...	...
87	... ...	+ 1·5691	+ 0·0081	...	− 15·203	+ 0·156	...	...
88	... ...	+ 2·0855	− 0·0004	...	− 15·147	+ 0·206	...	...
89	43 Arietis σ	+ 3·3020	+ 0·0150	− 0·000	− 15·075	+ 0·323	+ 0·04	400
90	... ...	+ 2·2545	− 0·0009	...	− 15·018	+ 0·224	...	...
91	Stone 1170	+ 2·2876	− 0·0010	...	− 14·983	+ 0·227	...	...
92	... ...	+ 2·2328	− 0·0008	...	− 14·959	+ 0·223	...	...
93	Stone 1192	+ 2·1682	− 0·0004	...	− 14·809	+ 0·219	...	...
94	Stone 1208	+ 1·7087	+ 0·0052	...	− 14·727	+ 0·175	...	...
95	Stone 1212	+ 1·9181	+ 0·0020	...	− 14·684	+ 0·196	...	...
96	Stone 1223	+ 1·1582	+ 0·0206	...	− 14·638	+ 0·121	...	...
97	Taylor 1024	+ 2·2270	0·0000	...	− 14·438	+ 0·233	...	...
98	Taylor 1027	+ 2·5659	+ 0·0007	...	− 14·391	+ 0·266	...	...
99	... ...	+ 2·2204	+ 0·0001	...	− 14·322	+ 0·232	...	...
100	Stone 1263	+ 2·0481	+ 0·0011	...	− 14·247	+ 0·217	...	...
101	Stone 1264	+ 2·1461	+ 0·0005	...	− 14·228	+ 0·226	...	...
102	Taylor 1042	+ 2·1491	+ 0·0005	...	− 14·198	+ 0·227	...	...
103	R. P. L. 33	+ 13·0815	+ 1·6154	+ 0·045	− 13·879	+ 1·383	+ 0·12	402
104	57 Arietis δ	+ 3·4102	+ 0·0171	+ 0·010	− 13·871	+ 0·364	− 0·01	446
105	Stone 1342	+ 2·2253	+ 0·0010	...	− 13·558	+ 0·245	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.		′	″	...	
106	... ...	9·0	...	3	12	17·23	126	8	37·8	3	0·01
107	33 Persei α	1·9	...	3	15	58·29	40	33	23·5	3	0·05
108	1 Tauri o, Var. 5	Var.	...	3	18	31·06	81	23	0·7	6	0·37
109	... ...	8·0	3	3	18	35·65	134	32	55·3	5	0·03
110	Stone 1414	7·2	...	3	19	17·12	130	29	29·3	3	0·00
111	... ...	7·7	2	3	26	30·25	135	8	2·2	3	0·04
112	18 Eridani ε	3·7	...	3	27	25·15	99	51	20·0	6	0·03
113	R. P. L. 34	5·9	...	3	28	19·44	3	43	29·0	4	0·50
114	Stone 1522	7·8	...	3	34	39·71	136	37	22·6	2	0·00
115	Stone 1526	8·0	...	3	35	9·27	126	19	10·3	5	0·01
116	25 Tauri η (*Alcyone*) ...	3·0	...	3	40	31·81	66	15	27·8	4	0·25
117	... ...	8·3	2	3	44	17·92	136	26	47·0	4	0·04
118	... ...	9·0	4	3	49	49·40	126	22	56·1	5	0·02
119	37 Tauri A^1	4·4	...	3	57	46·71	68	14	20·7	16	0·05
120	R. P. L. 35	6·7	...	4	0	13·55	4	45	17·8	2	0·00
121	38 Eridani o^1	4·1	...	4	6	9·25	97	8	35·3	1	0·03
122	α Reticuli	3·3	...	4	12	55·28	152	46	1·2	5	0·11
123	54 Tauri γ	3·9	...	4	13	8·11	74	39	22·0	13	0·03
124	Taylor 1553	8·3	...	4	20	49·49	134	17	23·0	4	0·03
125	74 Tauri ε	3·7	...	4	21	47·09	71	4	49·4	2	0·02
126	Taylor 1595	6·9	...	4	27	0·28	131	25	33·3	4	0·01
127	87 Tauri α (*Aldebaran*) ...	1·0	...	4	29	12·46	73	43	37·5	8	0·09
128	α Doradûs	3·1	...	4	31	28·21	145	17	13·2	5	0·11
129	Stone 1991	7·3	...	4	32	31·02	135	22	30·1	4	0·01
130	... ...	7·0	5	4	45	26·49	131	47	22·9	5	0·08
131	3 Aurigæ ι	2·7	...	4	49	22·43	57	1	15·9	9	0·08
132	R. P. L. 37	7·0	...	4	50	27·71	4	11	49·5	12	0·09
133	7 Aurigæ ε, Var. 1 ...	Var.	...	4	53	34·38	46	21	8·7	5	0·11
134	Stone 2191	8·0	...	4	56	19·73	131	13	19·8	5	0·06
135	R. P. L. 39	7·0	...	5	4	14·00	4	26	3·0	17	0·22
136	13 Aurigæ α (*Capella*) ...	0·2	...	5	8	2·65	44	7	19·6	9	0·09
137	19 Orionis β (*Rigel*) ...	0·3	...	5	8	54·85	98	20	16·2	8	0·10
138	112 Tauri β	1·9	...	5	18	53·79	61	29	34·9	4	0·04
139	R. P. L. 40	6·0	...	5	24	37·77	4	51	57·9	6	0·21
140	34 Orionis δ, Var. 1 ...	Var.	...	5	26	1·88	90	23	12·9	1	0·05

113.—Groombridge 642.
120.—Groombridge 750.
139.—Groombridge 944.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
106	...	+ 0·3704	+ 0·0009	...	− 13·400	+ 0·260	...	...
107	33 Persei α	+ 4·2512	+ 0·0483	+ 0·002	− 13·158	+ 0·472	+ 0·03	464
108	1 Tauri ο	+ 3·2267	+ 0·0115	− 0·005	− 12·989	+ 0·364	+ 0·07	477
109	...	+ 2·0695	+ 0·0021	...	− 12·984	+ 0·236	...	..
110	Stone 1414	+ 2·2002	+ 0·0016	...	− 12·938	+ 0·251	...	...
111	...	+ 2·0193	+ 0·0028	...	− 12·449	+ 0·236	...	...
112	18 Eridani ε	+ 2·8897	+ 0·0055	− 0·068	− 12·386	+ 0·336	− 0·01	493
113	R. P. L. 34	+ 19·2728	+ 3·2566	+ 0·136	− 12·324	+ 2·222	+ 0·06	Gr
114	Stone 1522	+ 1·9325	+ 0·0038	...	− 11·381	+ 0·232	...	...
115	Stone 1526	+ 2·2795	+ 0·0022	...	− 11·847	+ 0·273	...	...
116	25 Tauri η	+ 3·5548	+ 0·0177	− 0·000	− 11·465	+ 0·430	+ 0·04	521
117	...	+ 1·9053	+ 0·0042	...	− 11·192	+ 0·235	...	...
118	...	+ 2·2420	+ 0·0027	...	− 10·788	+ 0·280	...	...
119	37 Tauri A^1	+ 3·5319	+ 0·0153	+ 0·005	− 10·195	+ 0·447	+ 0·06	554
120	R. P. L. 35	− 16·9992	+ 1·8057	+ 0·002	− 10·009	+ 2·152	− 0·02	750
121	38 Eridani ο^1	+ 2·9250	+ 0·0058	− 0·001	− 9·557	+ 0·379	− 0·09	568
122	α Reticuli	+ 0·7520	+ 0·0216	+ 0·005	− 9·033	+ 0·102	− 0·07	Stone
123	54 Tauri γ	+ 3·4000	+ 0·0115	+ 0·007	− 9·015	+ 0·446	+ 0·03	583
124	Taylor 1553	+ 1·8883	+ 0·0046	..	− 8·410	+ 0·254	...	...
125	74 Tauri ε	+ 3·4892	+ 0·0120	+ 0·007	− 8·334	+ 0·466	+ 0·08	609
126	Taylor 1595	+ 1·9884	+ 0·0041	...	− 7·915	+ 0·269	...	...
127	87 Tauri α	+ 3·4323	+ 0·0105	+ 0·004	− 7·739	+ 0·464	+ 0·18	630
128	α Doradûs	+ 1·2848	+ 0·0099	...	− 7·556	+ 0·176	...	...
129	Stone 1991	+ 1·8153	+ 0·0048	...	− 7·470	+ 0·249	...	...
130	...	+ 1·9401	+ 0·0041	...	− 6·409	+ 0·271	...	...
131	3 Aurigæ ι	+ 3·8989	+ 0·0144	+ 0·001	− 6·082	+ 0·544	+ 0·00	677
132	R. P. L. 37	+ 20·4576	+ 1·4960	...	− 5·991	+ 2·851	...	...
133	7 Aurigæ ε	+ 4·2945	+ 0·0197	− 0·002	− 5·731	+ 0·602	+ 0·01	690
134	Stone 2191	+ 1·9460	+ 0·0039	...	− 5·500	+ 0·275	...	...
135	R. P. L. 39	+ 19·8047	+ 1·1015	...	− 4·831	+ 2·805	...	...
136	13 Aurigæ α	+ 4·4156	+ 0·0173	+ 0·008	− 4·508	+ 0·629	+ 0·42	722
137	19 Orionis β	+ 2·8812	+ 0·0040	− 0·001	− 4·433	+ 0·412	− 0·01	736
138	112 Tauri β	+ 3·7869	+ 0·0082	+ 0·001	− 3·577	+ 0·545	+ 0·18	756
139	R. P. L. 40	+ 18·5835	+ 0·5958	...	− 3·083	+ 2·680	...	...
140	34 Orionis δ	+ 3·0634	+ 0·0038	− 0·001	− 2·962	+ 0·443	+ 0·01	787

113.—Proper motions from *Greenwich Catalogue*, 1880.

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
141	11 Leporis α	2·7	...	5	27	34·23	107	54	25·7	2	0·07
142	R. P. L. 41	7·5	...	5	29	13·78	4	44	59·2	8	0·57
143	R. P. L. 42...	7·9	...	5	36	37·99	2	40	52·8	9	0·07
144	53 Orionis κ	2·2	...	5	42	12·45	99	42	46·3	4	0·07
145	33 Aurigæ δ	3·8	...	5	49	53·55	35	43	33·5	5	0·11
146	R. P. L. 43	6·6	...	6	0	28·21	3	14	15·4	9	0·31
147	7 Geminorum η	3·5	...	6	7	48·87	67	27	37·1	10	0·10
148	31 Geminor ξ	3·4	...	6	38	43·35	76	58	46·1	10	0·13
149	51 Cephei (*Hev.*)	5·3	...	6	45	17·83	2	46	26·2	10	0·12
150	... ... (*2nd Star*)...	9·5	4	6	48	35·47	70	33	38·0	4	0·11
151	W. B. N. VI. 1448 ...	9·0	5	6	49	45·81	62	3	39·3	5	0·11
152	22 Canis Majoris	3·5	...	6	57	3·56	117	46	5·3	5	0·11
153	3 Canis Minoris β ...	3·1	...	7	20	48·35	81	28	31·9	10	0·12
154	77 Geminorum κ	1·1	...	7	37	22·89	65	19	21·3	5	0·15
155	W. B. E. VII. 1127 ...	9·0	5	7	38	32·60	81	9	24·6	5	0·12
156	ξ Argûs	3·4	...	7	44	22·49	114	33	59·1	10	0·14
157	R. P. L. 48	7·4	...	7	46	44·85	3	58	3·8	5	0·64
158	Lalande 16364	8·0	5	8	15	22·48	76	0	18·2	5	0·10
159	R. P. L. 53	7·7	...	8	20	38·22	4	32	8·7	5	0·68
160	Lalande 16797	8·0	5	8	27	6·61	76	3	3·5	5	0·11
161	R. P. L. 55	7·5	...	8	31	31·92	5	40	55·7	3	0·77
162	43 Cancri γ	4·8	...	8	36	30·77	68	6	42·3	10	0·14
163	R. P. L. 60	7·0	...	8	50	44·02	5	21	10·9	1	0·74
164	W. B. E. IX. 78	9·0	5	9	6	31·26	77	16	15·8	5	0·12
165	ι Argûs	2·5	...	9	13	57·46	148	47	6·6	10	0·21
166	Lalande 18405	8·0	5	9	14	35·46	77	32	44·0	5	0·13
167	W. B. E. IX. 270	9·0	5	9	14	55·42	77	15	40·3	5	0·14
168	κ Argûs	2·7	...	9	18	29·19	144	30	40·9	5	0·14
169	R. P. L. 62	8·1	...	9	21	24·45	2	21	32·2	2	0·70
170	Lalande 19559	7·0	5	9	53	48·60	109	47	50·9	5	0·14
171	Lalande 19846	8·0	5	10	5	40·85	107	3	30·1	5	0·14
172	33 Ursæ Majoris λ ...	3·6	...	10	10	1·86	46	30	6·0	1	0·15
173	W. B. E. X. 228	9·0	5	10	15	3·03	104	0	29·4	5	0·15
174	Lalande 20089	7·5	5	10	15	10·54	104	54	4·2	5	0·15
175	... ...	9·7	5	10	16	2·01	84	34	2·6	5	0·28

150.—Comparison star for Hestia in 1882. 151.—Comparison star for Sylvia in 1882.
155.—Comparison star for Camilla in 1882.
158—160—164—166—167—170—171—173—174.—Comparison stars for Comet 1882, A.
163.—Carrington 1286. 175.—Comparison star for Asia in 1883.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
141	11 Leporis α	+ 2·6446	+ 0·0029	− 0·001	− 2·828	+ 0·383	− 0·01	796
142	R. P. L. 41	+ 19·0176	+ 0·5444	...	− 2·684	+ 2·750	...	...
143	R. P. L. 42	+ 31·4697	+ 1·2560	...	− 2·041	+ 4·567	...	...
144	53 Orionis κ	+ 2·8441	+ 0·0027	− 0·002	− 1·555	+ 0·414	− 0·00	844
145	33 Aurigæ δ	+ 4·9293	+ 0·0061	+ 0·007	− 0·885	+ 0·718	+ 0·12	852
146	R. P. L. 43	+ 26·7050	− 0·0260	...	+ 0·041	+ 3·896	...	...
147	7 Geminorum η ...	+ 3·6269	+ 0·0007	− 0·005	+ 0·682	+ 0·529	+ 0·00	909
148	31 Geminorum ξ ...	+ 3·3772	− 0·0017	− 0·009	+ 3·373	+ 0·485	+ 0·20	989
149	51 Cephei (*Hev.*) ...	+ 30·1274	− 2·2654	− 0·040	+ 3·937	+ 4·307	+ 0·05	Gr.
150	... ... (*2nd Star*)...	+ 3·5336	− 0·0038	...	+ 4·220	+ 0·502	...	...
151	W. B. N. VI. 1448 ...	+ 3·7647	− 0·0060	...	+ 4·320	+ 0·535	...	...
152	22 Canis Majoris ...	+ 2·3901	+ 0·0013	− 0·002	+ 4·941	+ 0·336	+ 0·01	1027
153	3 Canis Minoris β ...	+ 3·2605	− 0·0041	− 0·004	+ 6·924	+ 0·444	+ 0·03	1079
154	77 Geminorum κ ...	+ 3·7274	− 0·0128	− 0·048	+ 8·329	+ 0·491	+ 0·05	1112
155	W. B. E. VII. 1127 ...	+ 3·2614	− 0·0053	...	+ 8·359	+ 0·429	...	...
156	ξ Argûs	+ 2·5235	+ 0·0008	− 0·001	+ 8·820	+ 0·327	− 0·02	1132
157	R. P. L. 48	+ 20·2936	− 2·3725	...	+ 9·006	+ 2·640	...	...
158	Lalande 16364 ...	+ 3·3491	− 0·0091	...	+ 11·169	+ 0·401	...	...
159	R. P. L. 53	+ 16·8502	− 2·1717	...	+ 11·548	+ 2·004	...	...
160	Lalande 16797 ...	+ 3·3383	− 0·0097	...	+ 12·007	+ 0·392	...	...
161	R. P. L. 55	+ 13·6770	− 1·4659	...	+ 12·314	+ 1·569	...	...
162	43 Cancri γ	+ 3·4890	− 0·0143	− 0·009	+ 12·655	+ 0·390	+ 0·03	1230
163	R. P. L. 60	+ 13·5605	− 1·7011	...	+ 13·595	+ 1·448	..	...
164	W. B. E. IX. 78 ...	+ 3·2798	− 0·0102	...	+ 14·578	+ 0·323	...	...
165	ι Argûs	+ 1·6102	− 0·0022	...	+ 15·017	+ 0·150	...	...
166	Lalande 18405 ...	+ 3·2674	− 0·0103	...	+ 15·054	+ 0·310	...	...
167	W. B. E. IX. 270 ...	+ 3·2717	− 0·0104	..	+ 15·073	+ 0·310	...	...
168	κ Argûs	+ 1·8576	+ 0·0027	...	+ 15·277	+ 0·169	...	...
169	R. P. L. 62	+ 23·7805	− 3·0997	...	+ 15·441	+ 2·206	...	...
170	Lalande 19559 ...	+ 2·8205	+ 0·0039	...	+ 17·090	+ 0·209	...	...
171	Lalande 19846 ...	+ 2·8761	+ 0·0085	...	+ 17·610	+ 0·193	...	...
172	33 Ursæ Majoris λ ...	+ 3·6579	− 0·0386	− 0·017	+ 17·789	+ 0·240	+ 0·06	1421
173	W. B. E. X. 228 ...	+ 2·9249	+ 0·0028	...	+ 17·987	+ 0·181	...	...
174	Lalande 20089 ...	+ 2·9152	+ 0·0031	...	+ 17·992	+ 0·180	...	...
175	... ...	+ 3·1281	− 0·0057	...	+ 18·025	+ 0·193	...	...

149.—Proper motions from *Greenwich Catalogue*, 1880.

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
176	Lalande 20205	8·0	3	10	19	29·37	84	50	7·8	5	0·27
177	Lalande 20521	6·7	5	10	30	28·06	99	58	33·9	5	0·15
178	Yarnall 4420	7·0	5	10	30	42·70	101	36	8·6	5	0·15
179	58 Leonis *d*	5·0	...	10	54	31·04	85	45	16·3	10	0·18
180	70 Leonis θ	3·5	...	11	8	5·97	73	55	52·0	5	0·18
181	84 Leonis τ	5·1	...	11	21	55·21	86	29	58·5	10	0·22
182	... ...	9·5	5	11	22	33·38	92	38	7·4	5	0·27
183	R. P. L. 82	7·0	...	11	26	38·94	3	44	15·7	15	0·45
184	R. P. L. 87	8·0	...	11	53	30·94	2	21	15·1	4	0·90
185	8 Virginis π	4·4	...	11	54	52·59	82	44	0·1	10	0·27
186	R. P. L. 97	7·2	...	12	37	34·31	5	42	52·0	3	0·91
187	R. P. L. 98	6·6	...	12	48	7·98	5	56	45·1	2	0·92
188	R. P. L. 99	5·6	...	12	48	16·20	5	57	4·6	2	0·97
189	77 Ursæ Majoris ε	1·8	...	12	48	52·59	33	24	17·7	5	0·26
190	43 Virginis δ	3·7	...	12	49	42·64	85	57	57·2	20	0·30
191	47 Virginis ε	3·0	...	12	56	21·16	78	24	42·2	30	0·32
192	R. P. L. 100	8·0	...	13	0	26·77	3	29	7·4	4	0·71
193	51 Virginis θ	4·4	...	13	3	53·52	94	54	48·8	11	0·35
194	R. P. L. 101	7·5	...	13	7	6·31	1	43	20·6	1	0·86
195	79 Virginis ζ	3·5	...	13	28	44·08	89	59	52·2	10	0·30
196	4 Bootis τ	4·5	...	13	41	42·10	71	57	31·2	10	0·28
197	85 Ursæ Majoris η	2·0	...	13	42	55·69	40	6	6·4	10	0·35
198	8 Bootis η	2·9	...	13	49	6·73	71	0	56·9	10	0·32
199	... ...	8·5	5	13	50	24·51	142	5	19·6	5	0·28
200	R. P. L. 108	7·8	...	14	1	29·77	3	40	55·6	1	0·99
201	Taylor 6609	7·2	...	14	5	40·83	131	5	32·7	5	0·32
202	Stone 7816—*2nd*	6·5	...	14	12	48·96	132	31	13·2	5	0·33
203	... ...	9·0	...	14	13	8·18	151	0	41·2	1	0·31
204	Stone 7826	6·9	...	14	14	9·36	156	6	31·8	2	0·30
205	... ...	7·0	3	14	21	19·61	150	19	32·5	3	0·34
206	... ...	8·9	5	14	21	30·45	150	17	33·2	5	0·33
207	Stone 7897	7·3	...	14	23	7·93	129	57	14·5	2	0·30
208	Stone 7947	7·1	...	14	29	31·32	157	41	41·6	2	0·30
209	Taylor 6811	7·8	...	14	30	6·60	132	36	5·4	5	0·32
210	Stone 7969	7·8	...	14	32	17·10	129	3	27·1	2	0·35

176.—Comparison star for Asia in 1883.
182.—Comparison star for Ariadne in 1883.
199.—Comparison star for Niobe in 1883.
177—178.—Comparison stars for Comet 1882, A.
188.—Groombridge 1940. 194.—Groombridge 2006.
200.—Groombridge 2099.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
176	Lalande 20205 ...	+ 3·1237	− 0·0056	...	+ 18·155	+ 0·182	...	...
177	Lalande 20521 ...	+ 2·9828	+ 0·0019	...	+ 18·542	+ 0·158	...	...
178	Yarnall 4420 ...	+ 2·9681	+ 0·0027	...	+ 18·551	+ 0·157	...	...
179	58 Leonis *d*	+ 3·1003	− 0·0039	− 0·002	+ 19·241	+ 0·120	+ 0·01	1526
180	70 Leonis θ	+ 3·1588	− 0·0098	− 0·006	+ 19·542	+ 0·096	+ 0·06	1548
181	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·777	+ 0·066	+ 0·01	1570
182	... ...	+ 3·0623	+ 0·0005	...	+ 19·786	+ 0·065	...	...
183	R. P. L. 82	+ 6·0399	− 1·3276	...	+ 19·841	+ 0·119	...	...
184	R. P. L. 87	+ 3·9924	− 1·1600	...	+ 20·046	+ 0·007	...	...
185	8 Virginis π	+ 3·0761	− 0·0023	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
186	R. P. L. 97	+ 0·8920	+ 0·1284	...	+ 19·785	− 0·030	...	...
187	R. P. L. 98	+ 0·3962	+ 0·2146	− 0·017	+ 19·613	− 0·020	− 0·02	1730
188	R. P. L. 99	+ 0·3913	+ 0·2146	− 0·020	+ 19·610	− 0·020	− 0·02	1731
189	77 Ursæ Majoris ε ...	+ 2·6433	− 0·0273	+ 0·012	+ 19·599	− 0·089	+ 0·02	1722
190	43 Virginis δ ...	+ 3·0521	+ 0·0025	− 0·034	+ 19·585	− 0·103	+ 0·05	1723
191	47 Virginis ε ...	+ 3·0056	− 0·0007	− 0·019	+ 19·451	− 0·114	− 0·03	1735
192	R. P. L. 100	− 2·6502	+ 1·2981	...	+ 19·360	+ 0·093	...	...
193	51 Virginis θ ...	+ 3·1040	+ 0·0078	− 0·004	+ 19·279	− 0·132	+ 0·04	1747
194	R. P. L. 101	− 9·7598	+ 7·0045	...	+ 19·200	+ 0·403	...	...
195	99 Virginis ζ ...	+ 3·0723	+ 0·0064	− 0·021	+ 18·570	− 0·176	− 0·06	1789
196	4 Bootis τ	+ 2·8854	− 0·0007	− 0·035	+ 18·111	− 0·188	− 0·04	1810
197	85 Ursæ Majoris η ...	+ 2·3831	− 0·0103	− 0·012	+ 18·066	− 0·159	+ 0·01	1815
198	8 Bootis η	+ 2·8616	− 0·0006	− 0·005	+ 17·823	− 0·199	+ 0·34	1821
199	... ...	+ 3·8675	+ 0·0584	...	+ 17·773	− 0·268	...	...
200	R. P. L. 108	− 7·4318	+ 2·3498	...	+ 17·301	+ 0·541	...	...
201	Taylor 6609	+ 3·6801	+ 0·0383	...	+ 17·113	− 0·285	...	...
202	Stone 7816	+ 3·7437	+ 0·0404	...	+ 16·780	− 0·305	...	...
203	... ...	+ 4·3965	+ 0·0910	...	+ 16·765	− 0·357	...	...
204	Stone 7826	+ 4·7398	+ 0·1241	...	+ 16·715	− 0·387	...	...
205	... ...	+ 4·4292	+ 0·0878	...	+ 16·359	− 0·379	...	...
206	... ...	+ 4·4289	+ 0·0877	...	+ 16·351	− 0·379	...	...
207	Stone 7897	+ 3·7271	+ 0·0367	..	+ 16·268	− 0·324	...	...
208	Stone 7947	+ 5·0506	+ 0·1394	...	+ 15·936	− 0·452	...	...
209	Taylor 6811	+ 3·8212	+ 0·0403	...	+ 15·903	− 0·345	...	...
210	Stone 7969	+ 3·7413	+ 0·0352	...	+ 15·788	− 0·342	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
211	... ...	8·5	...	14	35	28·51	151	25	42·9	1	0·34
212	... ...	8·5	...	14	38	46·84	128	6	32·4	1	0·30
213	Taylor 6891	6·8	...	14	39	56·08	133	3	50·8	5	0·32
214	... ...	7·5	5	14	42	48·04	126	54	24·4	5	0·35
215	Taylor 6925	5·7	...	14	45	30·72	127	19	14·0	5	0·33
216	... ...	7·5	2	14	47	5·48	131	33	52·9	3	0·30
217	... ...	7·5	3	14	48	10·26	126	41	4·9	4	0·32
218	7 Ursæ Minoris β, Var. 1.	Var.	...	14	51	3·41	15	21	57·8	5	0·36
219	Stone 8165	7·8	...	14	52	35·22	129	19	45·5	5	0·34
220	R. P. L. 110	7·0	...	14	52	53·59	3	34	5·8	4	0·11
221	... .	8·0	1	14	53	29·62	131	49	19·1	3	0·30
222	Taylor 7001	6·7	...	14	56	15·52	125	28	54·2	5	0·32
223	Taylor 7027	6·8	...	14	58	53·17	125	48	33·1	1	0·30
224	27 Libræ β	2·7	...	15	10	42·68	98	57	0·6	10	0·34
225	R. P. L. 114	6·9	...	15	15	19·89	2	19	8·7	3	0·04
226	... ...	9·0	2	15	37	31·10	155	8	45·7	2	0·40
227	24 Serpentis α	2·7	...	15	38	30·32	83	12	18·8	14	0·39
228	37 Serpentis ε	3·7	...	15	44	59·03	85	10	7·7	10	0·39
229	... ...	8·3	...	15	46	27·90	130	46	30·0	4	0·45
230	R. P. L. 116	7·0	...	16	0	47·47	4	21	54·1	11	0·19
231	R. P. L. 117	7·2	...	16	3	14·69	6	2	42·6	13	0·11
232	... ...	7·8	...	16	5	1·55	133	46	12·3	2	0·36
233	... ...	8·5	2	16	6	5·44	125	29	45·0	2	0·36
234	Stone 8832	8·0	...	16	7	57·02	135	5	30·7	2	0·34
235	... ...	8·0	4	16	8	14·33	135	14	55·6	4	0·38
236	Stone 8853	7·6	...	16	10	37·47	124	37	29·3	3	0·35
237	19 Ursæ Minoris	5·5	...	16	14	10·02	13	49	42·3	2	0·37
238	Stone 8892	6·6	...	16	14	44·60	152	51	1·4	4	0·35
239	20 Herculis γ	3·8	...	16	16	45·49	70	34	15·3	10	0·41
240	... ...	8·5	4	16	18	6·14	130	57	19·4	4	0·37
241	21 Ursæ Minoris η ...	5·0	...	16	20	56·10	13	58	30·9	4	0·36
242	... .	8·0	3	16	23	32·67	136	25	16·7	3	0·36
243	... ...	7·5	1	16	23	38·69	128	44	44·1	1	0·34
244	27 Herculis β	2·8	...	16	25	11·32	68	15	19·0	1	0·39
245	Stone 8976	7·3	...	16	25	25·32	123	16	49·6	3	0·37

225.—Groombridge 2283.
230.—Carrington 2423.
229.—Comparison star for Phædra in 1881.
231.—Carrington 2424.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
211	... ...	+ 4·6129	+ 0·0930	...	+ 15·614	− 0·427	...	...
212	... ...	+ 3·7422	+ 0·0339	...	+ 15·431	− 0·354	...	...
213	Taylor 6891	+ 3·8752	+ 0·0406	...	+ 15·366	− 0·369	...	...
214	... ...	+ 3·7271	+ 0·0323	...	+ 15·203	− 0·360	...	...
215	Taylor 6925	+ 3·7461	+ 0·0326	...	+ 15·048	− 0·366	...	...
216	... ...	+ 3·8621	+ 0·0379	...	+ 14·957	− 0·380	...	...
217	... ...	+ 3·7393	+ 0·0319	...	+ 14·893	− 0·370	...	...
218	7 Ursæ Minoris β ...	− 0·2306	+ 0·1022	− 0·008	+ 14·722	+ 0·018	+ 0·01	1917
219	Stone 8165	+ 3·8214	+ 0·0346	...	+ 14·631	− 0·386	...	...
220	R. P. L. 110	− 11·6097	+ 3·0017	...	+ 14·613	+ 1·154	...	...
221	... ...	+ 3·8838	+ 0·0378	...	+ 14·576	− 0·395	...	..
222	Taylor 7001	+ 3·7351	+ 0·0300	...	+ 14·410	− 0·384	...	...
223	Taylor 7027	+ 3·7510	+ 0·0302	...	+ 14·249	− 0·390	...	...
224	27 Libræ β	+ 3·2280	+ 0·0117	− 0·008	+ 13·502	− 0·353	+ 0·02	1934
225	R. P. L 114	− 21·7776	+ 7·3882	...	+ 13·200	+ 2·385	...	...
226	... ...	+ 5·4187	+ 0·1022	...	+ 11·679	− 0·645	...	..
227	24 Serpentis α ...	+ 2·9425	+ 0·0062	+ 0·008	+ 11·610	− 0·354	− 0·06	1990
228	37 Serpentis ε ...	+ 2·9784	+ 0·0066	+ 0·007	+ 11·143	− 0·365	− 0·06	2005
229	... ...	+ 4·0350	+ 0·0806	...	+ 11·034	− 0·495	...	...
230	R. P. L. 116	− 12·1258	+ 1·7439	...	+ 9·967	+ 1·530	...	...
231	R. P. L. 117	− 7·9486	+ 0·8614	...	+ 9·780	+ 1·008	...	...
232	... ...	+ 4·1953	+ 0·0307	...	+ 9·644	− 0·539	...	...
233	... ...	+ 3·9105	+ 0·0227	...	+ 9·562	− 0·505	...	...
234	Stone 8832	+ 4·2564	+ 0·0318	...	+ 9·419	− 0·551	...	...
235	... ...	+ 4·2637	+ 0·0319	...	+ 9·396	− 0·552	...	...
236	Stone 8853	+ 3·8924	+ 0·0214	...	+ 9·211	− 0·507	...	...
237	19 Ursæ Minoris ...	− 1·7925	+ 0·1266	− 0·005	+ 8·934	+ 0·231	− 0·00	2096
238	Stone 8892	+ 5·4092	+ 0·0715	...	+ 8·888	− 0·709	...	...
239	20 Herculis γ ...	+ 2·6479	+ 0·0038	− 0·005	+ 8·732	− 0·351	− 0·05	2084
240	... ...	+ 4·1198	+ 0·0254	...	+ 8·627	− 0·545	...	...
241	21 Ursæ Minoris η ...	− 1·8051	+ 0·1185	− 0·019	+ 8·401	+ 0·237	− 0·25	2111
242	... ...	+ 4·3548	+ 0·0299	...	+ 8·192	− 0·583	...	...
243	... ...	+ 4·0517	+ 0·0225	...	+ 8·187	− 0·543	.	...
244	27 Herculis β ...	+ 2·5841	+ 0·0037	− 0·009	+ 8·061	− 0·348	+ 0·02	2100
245	Stone 8976	+ 3·8762	+ 0·0185	...	+ 8·041	− 0·520	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
246	... ...	9·5	3	16	29	2·63	125	32	36·0	3	0·38
247	η^1 Trianguli Australis ...	6·4	...	16	29	19·56	158	3	36·1	2	0·36
248	Stone 9014	7·3	...	16	30	33·44	128	54	48·0	1	0·34
249	13 Ophiuchi ζ	2·8	...	16	30	43·00	100	19	44·0	20	0·42
250	Lacaille 6881	6·6	...	16	31	31·80	157	12	5·0	2	0·35
251	... ...	7·5	5	16	36	1·15	128	6	36·3	5	0·37
252	... ...	8·0	2	16	38	51·77	125	34	33·7	2	0·35
253	... ...	9·5	4	16	41	15·34	126	18	21·2	4	0·40
254	... ...	7·5	...	16	41	37·68	132	53	52·9	1	0·35
255	... ...	8·0	3	16	42	29·49	127	50	30·9	3	0·36
256	... ...	7·5	5	16	44	2·02	129	2	39·4	5	0·39
257	Taylor 7793	7·0	...	16	44	42·16	127	23	47·9	1	0·35
258	... ...	9·5	2	16	49	0·76	132	12	58·1	2	0·37
259	... ...	8·5	4	16	50	20·18	128	26	17·6	4	0·35
260	... ...	9·0	...	16	56	52·92	129	52	39·8	5	0·37
261	22 Ursæ Minoris ϵ ...	4·5	...	16	57	59·87	7	46	16·9	2	0·41
262	... ...	9·0	1	16	59	23·33	132	35	35·5	1	0·34
263	R. P. L. 118	8·0	...	17	1	59·57	5	8	35·3	15	0·24
264	Stone 9338	7·3	...	17	2	48·32	131	17	23·8	5	0·39
265	... ...	7·5	5	17	2	50·92	131	32	56·1	5	0·40
266	35 Ophiuchi η	2·6	...	17	3	40·07	105	34	43·4	20	0·52
267	... ...	8·5	..	17	6	15·90	131	19	56·9	1	0·36
268	Stone 9389	8·0	...	17	8	59·80	129	17	48·0	2	0·37
269	... ...	8·2	5	17	9	34·27	128	31	54·9	5	0·61
270	... ...	9·0	5	17	10	16·68	123	20	55·3	5	0·50
271	... ...	8·0	4	17	10	47·19	125	57	32·2	4	0·57
272	Stone 9428	7·0	...	17	12	18·41	155	35	2·3	1	0·38
273	... ...	9·0	4	17	13	18·04	129	22	49·0	4	0·44
274	... ...	7·4	4	17	14	38·76	131	58	17·8	4	0·39
275	Stone 9448—2*nd*	7·3	...	17	14	41·28	128	5	8·6	4	0·38
276	... ...	9·3	...	17	15	31·03	145	52	52·1	5	0·60
277	... ...	9·1	5	17	17	18·77	138	28	55·2	5	0·47
278	Stone 9479	7·7	...	17	17	27·63	138	30	22·0	5	0·51
279	49 Ophiuchi σ	4·4	...	17	20	42·58	85	45	25·1	10	0·41
280	... ...	8·0	5	17	21	46·19	127	10	45·3	5	0·58

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
246	... ...	+ 3·9532	+ 0·0192	...	+ 7·751	− 0·534	...	...
247	η^1 Trianguli Australis	+ 6·1349	+ 0·0913	...	+ 7·729	− 0·827	...	...
248	Stone 9014	+ 4·0705	+ 0·0218	...	+ 7·629	− 0·551	...	...
249	13 Ophiuchi ζ ...	+ 3·2977	+ 0·0087	− 0·001	+ 7·616	− 0·447	− 0·04	2109
250	Lacaille 6881 ...	+ 6·0189	+ 0·0837	...	+ 7·550	− 0·814	...	...
251	... ...	+ 4·0514	+ 0·0196	...	+ 7·186	− 0·554	...	...
252	... ...	+ 3·9693	+ 0·0175	...	+ 6·952	− 0·547	...	...
253	... ...	+ 3·9972	+ 0·0176	...	+ 6·755	− 0·551	...	...
254	... ...	+ 4·2427	+ 0·0220	...	+ 6·724	− 0·585	...	...
255	... ...	+ 4·0521	+ 0·0182	...	+ 6·653	− 0·560	...	...
256	... ...	+ 4·0977	+ 0·0188	...	+ 6·527	− 0·567	...	...
257	Taylor 7793	+ 4·0398	+ 0·0175	...	+ 6·470	− 0·560	..	...
258	... ...	+ 4·2275	+ 0·0197	..	+ 6·113	− 0·590	...	...
259	... ...	+ 4·0848	+ 0·0171	...	+ 6·002	− 0·571	...	...
260	... ...	+ 4·1472	+ 0·0164	...	+ 5·453	− 0·583	...	...
261	22 Ursæ Minoris ϵ ...	− 6·3674	+ 0·3104	+ 0·009	+ 5·359	+ 0·893	+ 0·00	2201
262	... ...	+ 4·2587	+ 0·0175	...	+ 5·242	− 0·601	...	...
263	R. P. L. 118	− 11·3079	+ 0·7060	...	+ 5·022	+ 1·594	...	...
264	Stone 9338	+ 4·2101	+ 0·0159	...	+ 4·952	− 0·597	...	...
265	... ...	+ 4·2205	+ 0·0160	...	+ 4·949	− 0·598	...	...
266	35 Ophiuchi η ...	+ 3·4339	+ 0·0073	...	+ 4·880	− 0·487	...	...
267	... ...	+ 4·2160	+ 0·0150	...	+ 4·659	− 0·600	...	...
268	Stone 9389	+ 4·1394	+ 0·0134	...	+ 4·426	− 0·590	...	...
269	... ...	+ 4·1112	+ 0·0131	...	+ 4·377	− 0·587	...	...
270	... ...	+ 3·9316	+ 0·0110	...	+ 4·317	− 0·562	...	...
271	.. ..	+ 4·0200	+ 0·0123	...	+ 4·269	− 0·623	...	...
272	Stone 9428	+ 5·9538	+ 0·0431	...	+ 4·143	− 0·851	...	...
273	... ...	+ 4·1470	+ 0·0126	...	+ 4·057	− 0·594	...	...
274	... ...	+ 4·2515	+ 0·0134	...	+ 3·942	− 0·609	...	...
275	Stone 9448	+ 4·0996	+ 0·0118	...	+ 3·938	− 0·588	...	...
276	... ...	+ 5·0084	+ 0·0231	...	+ 3·868	− 0·718	...	...
277	... ...	+ 4·5563	+ 0·0162	...	+ 3·714	− 0·654	...	...
278	Stone 9479	+ 4·5578	+ 0·0161	...	+ 3·701	− 0·655	...	...
279	49 Ophiuchi σ ...	+ 2·9746	+ 0·0037	− 0·002	+ 3·421	− 0·428	− 0·02	2206
280	... ...	+ 4·0795	+ 0·0100	...	+ 3·330	− 0·586	...	...

Mean Positions of Stars for 1883, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
281	α Aræ ...	2·9	...	17	22	47·74	139	46	53·0	5	0·57
282	34 Scorpii υ	2·8	...	17	22	48·30	127	12	3·8	3	0·62
283	Stone 9566	7·3	...	17	26	10·82	130	26	47·9	5	0·51
284	... ...	9·0	...	17	28	7·56	134	29	10·4	1	0·40
285	Stone 9578	7·8	...	17	28	9·80	146	44	38·7	3	0·63
286	Brisbane 6132	9·0	...	17	28	38·23	135	4	47·9	1	0·38
287	θ Scorpii	2·1	...	17	28	54·63	132	55	16·9	5	0·44
288	... ...	8·0	5	17	29	8·92	128	42	31·2	5	0·58
289	... ...	7·0	5	17	31	44·58	128	17	57·8	5	0·39
290	R. P. L. 120	7·3	...	17	31	46·62	5	17	25·9	15	0·21
291	... ...	7·0	5	17	32	56·17	130	1	35·8	5	0·52
292	Brisbane 6160	8·0	1	17	33	20·24	134	43	12·5	1	0·38
293	... ...	7·5	5	17	35	28·25	144	4	40·2	5	0·61
294	60 Ophiuchi β	2·9	...	17	37	41·47	85	22	57·4	20	0·48
295	... ...	8·5	3	17	39	34·72	128	18	48·5	4	0·51
296	... ...	8·5	5	17	40	23·34	128	18	53·4	5	0·58
297	... ...	8·5	...	17	42	51·28	143	28	17·8	2	0·65
298	... ...	7·5	5	17	44	10·67	129	6	59·0	5	0·39
299	Taylor 8243	6·8	...	17	44	30·74	131	57	29·8	5	0·43
300	... ...	9·5	4	17	45	11·77	131	58	2·9	5	0·44
301	... ...	9·0	5	17	45	39·91	129	13	59·3	5	0·59
302	... ...	8·0	3	17	50	28·60	151	21	13·9	3	0·38
303	... ...	7·8	5	17	51	51·27	129	3	3·6	5	0·48
304	... ...	7·0	5	17	52	15·75	127	23	51·0	5	0·40
305	... ...	9·0	4	17	52	34·29	137	2	29·2	5	0·43
306	O. A. S. 17446	8·0	5	17	52	45·56	119	52	58·5	5	0·61
307	O. A. S. 17452	7·8	...	17	52	58·46	119	48	53·8	5	0·57
308	... ...	8·9	1	17	56	36·54	128	56	59·8	1	0·38
309	Stone 9840	7·5	...	17	57	33·63	127	28	30·9	5	0·47
310	... ...	7·8	...	17	58	5·33	127	26	20·2	5	0·44
311	Stone 9849	7·8	...	17	58	13·24	127	30	7·2	5	0·52
312	... ...	8·5	...	17	59	22·57	128	13	8·7	5	0·39
313	... ...	8·0	5	17	59	31·69	129	31	42·9	5	0·61
314	... ...	7·5	4	18	3	22·12	128	12	57·8	5	0·64
315	... ...	9·7	1	18	5	50·73	133	7	10·8	1	0·45

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
281	α Aræ	+ 4·6325	+ 0·0149	− 0·005	+ 3·241	− 0·667	+ 0·09	Stone
282	34 Scorpii υ	+ 4·0738	+ 0·0097	− 0·004	+ 3·240	− 0·587	+ 0·08	2205
283	Stone 9566	+ 4·1997	+ 0·0099	...	+ 2·949	− 0·606	...	...
284	... ...	+ 4·3729	+ 0·0108	...	+ 2·779	− 0·632	...	...
285	Stone 9578	+ 5·0914	+ 0·0176	...	+ 2·777	− 0·736	...	...
286	Brisbane 6132 ...	+ 4·4005	+ 0·0113	...	+ 2·735	− 0·650	...	...
287	θ Scorpii	+ 4·3042	+ 0·0100	+ 0·001	+ 2·713	− 0·623	+ 0·02	Stone
288	... ...	+ 4·1340	+ 0·0087	...	+ 2·691	− 0·598	...	...
289	... ...	+ 4·1201	+ 0·0081	...	+ 2·466	− 0·597	...	...
290	R. P. L. 120	− 11·2557	+ 0·3396	...	+ 2·463	+ 1·628	...	...
291	... ...	+ 4·1874	+ 0·0081	...	+ 2·362	− 0·607	...	...
292	Brisbane 6160 ...	+ 4·3872	+ 0·0093	...	+ 2·327	− 0·636	...	...
293	... ...	+ 4·9072	+ 0·0124	...	+ 2·142	− 0·712	...	...
294	60 Ophiuchi β ...	+ 2·9649	+ 0·0030	− 0·005	+ 1·949	− 0·431	− 0·17	2229
295	... ...	+ 4·1245	+ 0·0062	...	+ 1·785	− 0·600	...	...
296	... ...	+ 4·1250	+ 0·0060	...	+ 1·714	− 0·597	...	...
297	... ...	+ 4·8722	+ 0·0089	...	+ 1·499	− 0·709	...	...
298	... ...	+ 4·1569	+ 0·0052	...	+ 1·384	− 0·605	...	...
299	Taylor 8243	+ 4·2715	+ 0·0056	...	+ 1·354	− 0·622	...	...
300	... ...	+ 4·2722	+ 0·0055	...	+ 1·294	− 0·622	...	...
301	... ...	+ 4·1619	+ 0·0049	...	+ 1·253	− 0·607	...	...
302	... ...	+ 5·5175	+ 0·0077	...	+ 0·833	− 0·804	...	...
303	... ...	+ 4·1563	+ 0·0034	...	+ 0·713	− 0·606	...	..
304	... ...	+ 4·0939	+ 0·0033	...	+ 0·677	− 0·597	...	...
305	... ...	+ 4·5073	+ 0·0039	...	+ 0·651	− 0·657	...	...
306	O. A. S. 17446 ...	+ 3·8401	+ 0·0029	...	+ 0·633	− 0·560	...	...
307	O. A. S. 17452 ...	+ 3·8381	+ 0·0029	...	+ 0·614	− 0·559	...	...
308	... ...	+ 4·1529	+ 0·0024	...	+ 0·297	− 0·605	...	...
309	Stone 9840	+ 4·0973	+ 0·0022	...	+ 0·218	− 0·598	...	...
310	... ...	+ 4·0959	+ 0·0020	...	+ 0·167	− 0·597	...	...
311	Stone 9849	+ 4·0983	+ 0·0020	...	+ 0·156	− 0·597	...	...
312	... ...	+ 4·1250	+ 0·0017	...	+ 0·054	− 0·602	...	...
313	... ...	+ 4·1754	+ 0·0017	...	+ 0·041	− 0·609	...	...
314	... ...	+ 4·1249	+ 0·0009	...	− 0·295	− 0·602	...	...
315	... ...	+ 4·3239	− 0·0001	...	− 0·511	− 0·630	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of year.
				h.	*m.*	*s.*	°	′	″		
316	Stone 9922	8·5	...	18	5	52·89	133	10	51·9	7	0·45
317	Stone 9924	7·8	...	18	6	0·80	131	56	16·0	5	0·41
318	... ...	7·8	...	18	6	41·70	126	55	45·0	5	0·59
319	... ...	8·8	4	18	9	4·95	131	16	17·5	4	0·52
320	23 Ursæ Minoris δ ...	4·3	...	18	10	3·20	3	23	23·5	2	0·52
321	... ...	8·0	1	18	10	21·14	126	23	38·6	1	0·39
322	... ...	8·0	4	18	13	25·62	136	5	3·0	5	0·41
323	... ...	8·8	...	18	14	12·57	127	48	38·4	1	0·40
324	Taylor 8452	5·6	...	18	14	14·53	128	42	29·1	5	0·67
325	58 Serpentis η	3·4	...	18	15	15·31	92	55	41·4	20	0·55
326	... ...	7·0	1	18	15	22·31	128	47	29·8	4	0·68
327	... ...	8·0	...	18	15	42·39	138	50	53·2	4	0·39
328	... ...	8·0	1	18	16	32·65	127	17	6·3	1	0·38
329	22 Sagittarii λ	3·1	...	18	20	44·98	115	29	6·0	20	0·58
330	... ...	8·5	...	18	22	46·04	129	38	50·7	5	0·40
331	... ...	8·3	3	18	23	24·80	127	40	10·8	5	0·45
332	Stone 10124	7·8	...	18	29	26·77	131	42	32·5	5	0·40
333	... ...	8·5	6	18	30	45·34	127	5	57·3	6	0·60
334	... ...	9·0	5	18	30	55·24	127	58	18·2	5	0·58
335	... ...	7·5	4	18	31	24·86	127	23	13·7	5	0·44
336	Stone 10154	8·0	...	18	32	12·22	134	16	33·3	3	0·38
337	... ...	8·0	5	18	34	2·27	125	42	5·5	5	0·41
338	... ...	8·0	...	18	34	16·67	124	34	17·8	5	0·69
339	Stone 10187	7·8	...	18	36	45·11	127	0	7·7	5	0·61
340	Taylor 8599	5·8	...	18	36	49·40	129	48	6·5	6	0·53
341	Taylor 8600	7·0	...	18	36	51·47	129	51	37·1	5	0·50
342	... ...	7·5	5	18	38	45·51	131	17	0·6	5	0·39
343	... ...	9·0	5	18	39	14·18	128	56	34·0	5	0·42
344	Stone 10239	8·0	...	18	42	49·47	134	36	20·4	6	0·61
345	... ...	8·3	...	18	43	31·09	134	49	13·4	5	0·66
346	Taylor 8647	7·0	...	18	43	38·57	134	40	15·1	4	0·72
347	... ...	7·9	2	18	43	48·78	125	31	2·0	3	0·70
348	... ...	9·1	5	18	45	24·16	129	28	13·7	4	0·42
349	... ...	8·5	..	18	47	6·54	133	50	46·5	5	0·67
350	Taylor 8685	5·7	...	18	48	44·17	127	29	25·4	5	0·61

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
316	Stone 9922	+ 4·3266	− 0·0001	...	− 0·515	− 0·631	...	...
317	Stone 9924	+ 4·2731	+ 0·0001	...	− 0·527	− 0·623	...	...
318	... ...	+ 4·0767	+ 0·0002	...	− 0·586	− 0·594	...	...
319	... ...	+ 4·2447	− 0·0008	...	− 0·795	− 0·619	...	...
320	23 Ursæ Minoris δ ...	− 19·4710	− 0·2912	+ 0·026	− 0·879	+ 2·837	− 0·04	2395
321	... ...	+ 4·0568	− 0·0006	...	− 0·905	− 0·591	...	...
322	... ...	+ 4·4585	− 0·0028	...	− 1·175	− 0·649	...	..
323	... ...	+ 4·1079	− 0·0015	...	− 1·243	− 0·598	...	...
324	Taylor 8452	+ 4·1417	− 0·0018	...	− 1·246	− 0·602	...	...
325	58 Serpentis η ...	+ 3·1405	+ 0·0010	− 0·040	− 1·334	− 0·456	+ 0·68	2298
326	... ...	+ 4·1445	− 0·0021	...	− 1·344	− 0·602	...	...
327	... ...	+ 4·5985	− 0·0042	...	− 1·373	− 0·668	...	...
328	... ...	+ 4·0876	− 0·0020	...	− 1·447	− 0·594	...	...
329	22 Sagittarii λ ...	+ 3·7070	− 0·0013	− 0·005	− 1·813	− 0·537	+ 0·20	2310
330	... ...	+ 4·1747	− 0·0040	...	− 1·988	− 0·605	...	...
331	... ...	+ 4·0991	− 0·0037	...	− 2·046	− 0·594	...	...
332	Stone 10124	+ 4·2541	− 0·0061	...	− 2·569	− 0·615	...	...
333	... ...	+ 4·0744	− 0·0051	...	− 2·683	− 0·588	...	...
334	... ...	+ 4·1063	− 0·0053	...	− 2·698	− 0·593	...	...
335	... ...	+ 4·0845	− 0·0053	...	− 2·741	− 0·589	...	...
336	Stone 10154	+ 4·3631	− 0·0079	...	− 2·809	− 0·630	...	...
337	... ...	+ 4·0225	− 0·0054	...	− 2·967	− 0·580	...	...
338	... ...	+ 3·9834	− 0·0052	...	− 2·989	− 0·574	...	...
339	Stone 10187	+ 4·0669	− 0·0064	...	− 3·203	− 0·585	...	...
340	Taylor 8599	+ 4·1719	− 0·0073	...	− 3·208	− 0·600	...	...
341	Taylor 8600	+ 4·1742	− 0·0073	...	− 3·211	− 0·600	...	...
342	... ...	+ 4·2294	− 0·0084	...	− 3·376	− 0·607	...	...
343	... ...	+ 4·1369	− 0·0077	...	− 3·417	− 0·594	...	...
344	Stone 10239	+ 4·3681	− 0·0110	...	− 3·726	− 0·625	...	...
345	... ...	+ 4·3770	− 0·0113	...	− 3·785	− 0·625	...	...
346	Taylor 8647	+ 4·3701	− 0·0113	...	− 3·796	− 0·624	...	...
347	... ...	+ 4·0092	− 0·0073	...	− 3·811	− 0·573	...	...
348	... ...	+ 4·1518	− 0·0093	...	− 3·946	− 0·591	...	...
349	... ...	+ 4·3295	− 0·0117	...	− 4·098	− 0·617	...	...
350	Taylor 8685	+ 4·0748	− 0·0090	...	− 4·233	− 0·579	...	...

Mean Positions of Stars for 1883, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
351	... ...	9·5	1	18	52	14·82	132	56	57·4	1	0·41
352	Taylor 8715—1*st*	7·0	...	18	53	8·64	127	13	15·9	5	0·70
353	Taylor 8715—2*nd* ...	7·0	...	18	53	9·78	127	13	18·8	5	0·72
354	... ...	8·5	2	18	53	54·87	128	6	56·3	2	0·64
355	13 Aquilæ ϵ	4·1	...	18	54	18·63	75	5	22·4	20	0·58
356	Stone 10351	6·1	...	18	55	18·25	128	25	12·8	4	0·75
357	... ...	7·5	...	19	0	11·78	135	15	26·1	5	0·65
358	Stone 10391	7·8	...	19	0	33·02	132	36	21·7	2	0·74
359	Stone 10400	7·2	...	19	1	34·57	130	0	38·1	5	0·50
360	... ...	8·5	3	19	4	10·04	135	27	41·6	3	0·61
361	Stone 10420	7·0	...	19	4	14·51	127	46	27·6	5	0·75
362	Stone 10432	6·3	...	19	6	8·78	135	23	24·5	2	0·60
363	... ...	7·5	2	19	7	41·63	129	24	5·3	2	0·65
364	Taylor 8823	5·9	...	19	7	50·30	135	40	3·9	6	0·66
365	Stone 10451	7·3	...	19	8	52·33	135	37	33·5	4	0·71
366	... ...	9·5	2	19	10	13·35	130	46	34·3	2	0·61
367	... ...	7·5	1	19	10	40·16	129	45	12·3	1	0·61
368	Stone 10465	5·9	...	19	11	54·58	125	37	59·2	3	0·75
369	Stone 10467	7·5	...	19	12	30·42	135	35	11·6	5	0·56
370	Stone 10487	7·0	...	19	14	14·57	119	49	17·6	4	0·74
371	... ...	8·3	...	19	14	18·77	127	26	18·2	5	0·68
372	... ...	8·5	...	19	17	6·82	130	4	36·7	2	0·59
373	49 Sagittarii χ^3	5·9	...	19	18	24·65	114	11	24·7	2	0·76
374	... ...	9·5	5	19	19	47·76	130	13	12·0	5	0·62
375	Stone 10534	8·0	...	19	21	55·22	125	19	13·6	4	0·75
376	... ...	8·0	3	19	22	5·72	132	34	16·5	4	0·63
377	... ...	9·0	1	19	25	49·63	133	42	50·9	1	0·60
378	... ...	9·0	...	19	25	58·53	146	55	2·3	2	0·70
379	Taylor 8982	6·3	...	19	28	35·13	148	14	24·0	1	0·78
380	Stone 10583	7·5	...	19	29	32·25	131	42	58·4	5	0·60
381	... ...	8·0	3	19	29	45·63	125	29	57·8	4	0·67
382	... ...	8·0	1	19	30	11·65	129	1	3·4	1	0·57
383	Stone 10594	6·7	...	19	31	17·22	135	32	34·2	5	0·74
384	Stone 10598	6·8	...	19	31	57·26	129	41	47·1	2	0·78
385	... ...	7·5	1	19	33	25·30	126	35	58·9	1	0·76

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
351	... ...	+ 4·2846	− 0·0126	...	− 4·533	− 0·607	...	...
352	Taylor 8715—1*st.* ...	+ 4·0607	− 0·0098	...	− 4·609	− 0·575	...	...
353	Taylor 8715—2*nd.* ...	+ 4·0607	− 0·0098	...	− 4·610	− 0·575	...	...
354	... ...	+ 4·0923	− 0·0104	...	− 4·676	− 0·579	...	...
355	13 Aquilæ ε	+ 2·7263	+ 0·0004	− 0·005	− 4·708	− 0·385	+ 0·08	2390
356	Stone 10351	+ 4·1020	− 0·0109	...	− 4·792	− 0·579	...	...
357	.. ..	+ 4·3750	− 0·0163	...	− 5·207	− 0·615	...	...
358	Stone 10391	+ 4·2594	− 0·0145	...	− 5·237	− 0·598	...	...
359	Stone 10400	+ 4·1543	− 0·0131	...	− 5·323	− 0·583	...	...
360	... ...	+ 4·3780	− 0·0176	...	− 5·542	− 0·612	...	...
361	Stone 10420	+ 4·0679	− 0·0124	...	− 5·548	− 0·569	...	...
362	Stone 10432	+ 4·3715	− 0·0179	...	− 5·708	− 0·610	...	...
363	... ...	+ 4·1231	− 0·0141	...	− 5·837	− 0·574	...	...
364	Taylor 8823	+ 4·3813	− 0·0187	...	− 5·850	− 0·610	...	...
365	Stone 10451	+ 4·3775	− 0·0190	...	− 5·936	− 0·608	...	...
366	... ...	+ 4·1717	− 0·0155	...	− 6·049	− 0·574	...	...
367	... ...	+ 4·1320	− 0·0149	...	− 6·085	− 0·573	...	...
368	Stone 10465	+ 3·9839	− 0·0127	...	− 6·190	− 0·550	...	...
369	Stone 10467	+ 4·3692	− 0·0199	...	− 6·239	− 0·608	...	...
370	Stone 10487	+ 3·7989	− 0·0103	...	− 6·382	− 0·523	...	...
371	... ...	+ 4·0426	− 0·0142	...	− 6·388	− 0·557	...	...
372	... ...	+ 4·1342	− 0·0166	...	− 6·621	− 0·567	...	...
373	49 Sagittarii χ^3 ...	+ 3·6381	− 0·0085	− 0·003	− 6·729	− 0·497	+ 0·01	2446
374	... ...	+ 4·1351	− 0·0167	...	− 6·842	− 0·565	...	...
375	Stone 10534	+ 3·9597	− 0·0144	...	− 7·017	− 0·539	...	...
376	... ...	+ 4·2237	− 0·0195	...	− 7·031	− 0·574	...	...
377	... ...	+ 4·2619	− 0·0214	...	− 7·335	− 0·576	...	...
378	... ...	+ 4·9817	− 0·0408	...	− 7·348	− 0·674	...	...
379	Taylor 8982	+ 5·0736	− 0·0452	...	− 7·561	− 0·682	...	...
380	Stone 10583	+ 4·1744	− 0·0205	...	− 7·637	− 0·561	...	...
381	... ...	+ 3·9538	− 0·0158	...	− 7·655	− 0·531	...	...
382	... ...	+ 4·0729	− 0·0184	...	− 7·690	− 0·546	...	...
383	Stone 10594	+ 4·3281	− 0·0246	...	− 7·778	− 0·580	...	...
384	Stone 10598	+ 4·0941	− 0·0192	...	− 7·833	− 0·548	...	...
385	... ...	+ 3·9838	− 0·0172	...	− 7·960	− 0·531	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
386	Stone 10622	6·1	...	19	35	48·42	127	48	47·2	2	0·74
387	Stone 10624	7·2	...	19	36	21·52	131	53	8·2	3	0·78
388	R. P. L. 133	7·9	...	19	37	46·97	4	9	17·2	14	0·39
389	R. P. L. 134	8·5	...	19	39	34·83	4	9	32·2	16	0·32
390	... ...	8·0	3	19	39	48·75	125	27	35·9	3	0·59
391	... ...	7·8	...	19	40	25·74	128	8	6·1	5	0·70
392	Stone 10658	7·0	...	19	41	45·01	128	4	1·6	6	0·73
393	Stone 10665	6·7	...	19	42	49·76	141	16	11·3	5	0·79
394	Taylor 9112	5·6	...	19	43	53·65	130	10	9·5	2	0·57
395	Stone 10677	6·9	...	19	43	59·78	127	37	47·8	5	0·70
396	Taylor 9131	7·0	...	19	47	16·59	148	13	51·9	2	0·75
397	... ...	8·5	1	19	48	9·62	131	59	53·1	2	0·65
398	... ...	8·0	...	19	50	19·15	132	59	35·1	1	0·72
399	Stone 10720	6·9	...	19	50	30·12	126	59	48·8	5	0·78
400	Stone 10727	6·5	...	19	51	34·59	120	51	2·1	5	0·74
401	Stone 10739	6·7	...	19	52	18·08	133	21	38·8	4	0·79
402	Stone 10752	8·0	...	19	53	51·58	126	59	55·9	5	0·71
403	... ...	8·0	1	19	54	25·56	130	18	18·3	1	0·62
404	Taylor 9195	5·0	...	19	55	46·79	128	15	46·0	5	0·77
405	... ...	9·0	4	19	56	54·69	131	48	50·5	4	0·64
406	Taylor 9213	6·5	...	19	58	21·86	145	21	0·0	5	0·79
407	... ...	9·5	2	19	58	30·50	148	10	37·3	2	0·60
408	Stone 10792	7·3	...	19	59	43·80	125	51	59·7	5	0·74
409	Stone 10797	6·6	...	20	0	38·87	137	24	12·0	3	0·78
410	Stone 10823	6·8	...	20	5	6·58	138	3	38·5	5	0·79
411	65 Aquilæ θ	3·4	...	20	5	16·01	91	10	3·2	20	0·69
412	Taylor 9308	6·2	...	20	7	59·41	117	22	52·3	2	0·78
413	Stone 10840	6·5	...	20	8	46·49	126	48	34·5	5	0·79
414	Stone 10858	7·5	...	20	10	48·15	134	53	13·9	3	0·63
415	Stone 10859	6·3	...	20	10	52·69	137	56	11·5	5	0·75
416	Taylor 9343	6·5	...	20	13	10·93	140	21	33·5	4	0·81
417	Stone 10884	7·3	...	20	13	48·94	123	6	20·3	5	0·69
418	... ...	8·5	...	20	14	42·99	133	19	31·5	5	0·70
419	Taylor 9370	5·6	...	20	15	55·57	132	47	50·3	5	0·78
420	R. P. L. 138	7·1	...	20	16	18·24	5	40	30·6	5	0·68

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
386	Stone 10622	+ 4·0192	− 0·0184	...	− 8·142	− 0·534	...	...
387	Stone 10624	+ 4·1668	− 0·0221	...	− 8·184	− 0·553	...	...
388	R. P. L. 133	− 13·6822	− 1·6816	...	− 8·299	+ 1·821	...	...
389	R. P. L. 134	− 13·6049	− 1·7006	...	− 8·442	+ 1·804	...	...
390	... ...	+ 3·9356	− 0·0175	...	− 8·460	− 0·517	...	...
391	... ...	+ 4·0227	− 0·0195	...	− 8·509	− 0·528	...	...
392	Stone 10658	+ 4·0178	− 0·0197	...	− 8·614	− 0·526	...	...
393	Stone 10665	+ 4·5743	− 0·0356	...	− 8·699	− 0·598	...	...
394	Taylor 9112	+ 4·0869	− 0·0218	...	− 8·783	− 0·533	...	...
395	Stone 10677	+ 3·9987	− 0·0197	...	− 8·791	− 0·521	...	...
396	Taylor 9131	+ 4·9989	− 0·0530	...	− 9·048	− 0·648	...	...
397	... ...	+ 4·1444	− 0·0245	...	− 9·117	− 0·535	...	.
398	... ...	+ 4·1772	− 0·0256	...	− 9·284	− 0·537	...	...
399	Stone 10720	+ 3·9648	− 0·0202	...	− 9·299	− 0·509	...	...
400	Stone 10727	+ 3·7781	− 0·0159	...	− 9·382	− 0·484	...	...
401	Stone 10739	+ 4·1863	− 0·0268	...	− 9·439	− 0·536	...	...
402	Stone 10752	+ 3·9579	− 0·0208	...	− 9·558	− 0·505	...	...
403	... ...	+ 4·0678	− 0·0239	...	− 9·601	− 0·518	...	...
404	Taylor 9195	+ 3·9950	− 0·0222	...	− 9·706	− 0·507	...	...
405	... ...	+ 4·1161	− 0·0259	...	− 9·792	− 0·521	...	...
406	Taylor 9213	+ 4·7543	− 0·0488	...	− 9·903	− 0·600	...	...
407	... ...	+ 4·9444	− 0·0572	...	− 9·914	− 0·623	...	...
408	Stone 10792	+ 3·9099	− 0·0207	...	− 10·006	− 0·491	...	...
409	Stone 10797	+ 4·3295	− 0·0338	...	− 10·074	− 0·543	...	...
410	Stone 10823	+ 4·3441	− 0·0358	...	− 10·412	− 0·539	...	...
411	65 Aquilæ θ	+ 3·0957	− 0·0042	− 0·000	− 10·423	− 0·382	− 0·01	2576
412	Taylor 9303	+ 3·6596	− 0·0155	...	− 10·626	− 0·448	...	...
413	Stone 10840	+ 3·9190	− 0·0228	...	− 10·684	− 0·480	...	...
414	Stone 10858	+ 4·1929	− 0·0323	...	− 10·835	− 0·511	...	...
415	Stone 10859	+ 4·3188	− 0·0368	...	− 10·840	− 0·526	...	...
416	Taylor 9343	+ 4·4211	− 0·0417	...	− 11·009	− 0·535	...	...
417	Stone 10884	+ 3·7996	− 0·0202	...	− 11·055	− 0·458	...	...
418	... ...	+ 4·1210	− 0·0308	...	− 11·121	− 0·496	...	...
419	Taylor 9370	+ 4·0988	− 0·0303	...	− 11·208	− 0·492	...	...
420	R. P. L. 138	− 8·0705	− 1·0526	...	− 11·236	+ 0·980	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*		′	″		
421	... ...	7·8	2	20	20	6·56	130	23	43·1	3	0·73
422	Taylor 9415	6·3	...	20	21	16·01	125	58	50·5	5	0·77
423	Stone 10939	6·5	...	20	23	46·73	119	30	11·9	5	0·80
424	Taylor 9464	7·8	...	20	26	40·77	112	37	37·0	4	0·79
425	R. P. L. 143	6·7	...	20	26	58·79	5	14	40·0	1	0·57
426	2 Delphini ε	4·1	...	20	27	37·31	79	5	37·2	25	0·72
427	Stone 11003	7·3	...	20	32	23·44	126	26	32·9	5	0·80
428	Taylor 9519	6·4	...	20	33	34·17	132	32	47·2	2	0·69
429	Taylor 9544	6·7	...	20	35	13·01	129	58	32·0	5	0·79
430	Taylor 9561	7·2	...	20	37	14·30	126	14	54·0	4	0·80
431	... ...	8·0	1	20	37	38·38	126	31	44·5	4	0·74
432	Taylor 9573	7·0	...	20	39	21·10	136	16	49·3	2	0·80
433	2 Aquarii ε	3·8	...	20	41	20·45	99	55	23·6	21	0·72
434	... ...	8·0	...	20	41	44·10	132	8	36·9	1	0·74
435	Taylor 9602	6·1	...	20	42	20·56	116	12	43·2	5	0·78
436	Stone 11081	7·5	...	20	43	59·40	131	20	28·7	1	0·73
437	Stone 11091	7·5	...	20	44	40·91	142	9	10·9	1	0·81
438	... ...	8·0	3	20	45	22·41	135	45	24·1	3	0·74
439	Stone 11103	6·6	...	20	46	13·38	141	10	0·8	5	0·69
440	Stone 11115	6·7	...	20	47	5·52	118	21	59·2	2	0·82
441	Stone 11120	7·8	...	20	47	24·40	145	39	55·4	5	0·80
442	... ...	8·5	1	20	52	32·74	129	10	32·6	2	0·70
443	Stone 11150	8·0	...	20	53	34·41	129	11	31·8	1	0·70
444	Stone 11156	7·0	...	20	54	13·41	123	21	6·5	5	0·78
445	Stone 11175	7·8	...	20	56	1·45	142	21	22·1	5	0·76
446	Stone 11186	7·3	...	20	57	44·24	127	41	30·7	2	0·78
447	Stone 11191	7·5	...	20	58	12·51	138	59	25·7	4	0·83
448	23 Capricorni θ	4·3	...	20	59	22·11	107	41	50·2	20	0·73
449	... ...	8·0	1	21	0	13·05	150	59	40·0	1	0·79
450	Stone 11227	6·8	...	21	1	58·69	134	40	55·2	5	0·79
451	Taylor 9809	5·7	...	21	5	33·65	129	54	2·0	5	0·75
452	Taylor 9843	6·6	...	21	9	53·94	139	12	11·1	5	0·75
453	Taylor 9889	6·7	...	21	14	52·11	119	39	40·8	5	0·76
454	33 Capricorni	5·7	...	21	17	31·27	111	20	51·0	5	0·76
455	Stone 11367	7·0	...	21	21	39·57	152	40	34·0	5	0·77

425.—Carrington 3128.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	″	″	″	
421	... ...	+ 4·0039	− 0·0280	...	− 11·510	− 0·474	...	...
422	Taylor 9415	+ 3·8643	− 0·0235	...	− 11·593	− 0·456	...	...
423	Stone 10939	+ 3·6848	− 0·0184	...	− 11·771	− 0·431	...	...
424	Taylor 9464	+ 3·5193	− 0·0141	...	− 11·977	− 0·408	...	...
425	R. P. L. 143	− 8·5987	− 1·2839	...	− 11·998	+ 1·010	...	...
426	2 Delphini ε	+ 2·8664	− 0·0013	− 0·001	− 12·042	− 0·330	+ 0·02	2642
427	Stone 11003	+ 3·8492	− 0·0251	...	− 12·374	− 0·438	...	...
428	Taylor 9519	+ 4·0310	− 0·0324	...	− 12·454	− 0·457	...	...
429	Taylor 9544	+ 3·9458	− 0·0294	...	− 12·566	− 0·445	...	...
430	Taylor 9561	+ 3·8308	− 0·0255	...	− 12·704	− 0·428	...	...
431	... ...	+ 3·8376	− 0·0239	...	− 12·732	− 0·429	...	...
432	Taylor 9573	+ 4·1458	− 0·0390	...	− 12·847	− 0·460	...	...
433	2 Aquarii ε	+ 3·2506	− 0·0084	− 0·000	− 12·979	− 0·356	+ 0·03	2681
434	... ...	+ 3·9933	− 0·0330	...	− 13·006	− 0·439	...	...
435	Taylor 9602	+ 3·5722	− 0·0174	...	− 13·046	− 0·391	...	...
436	Stone 11081	+ 3·9600	− 0·0321	...	− 13·156	− 0·431	...	...
437	Stone 11091	+ 4·3675	− 0·0517	...	− 13·201	− 0·475	...	...
438	... ...	+ 4·1030	− 0·0387	...	− 13·247	− 0·444	...	...
439	Stone 11103	+ 4·3151	− 0·0495	...	− 13·303	− 0·466	...	...
440	Stone 11115	+ 3·6107	− 0·0192	...	− 13·360	− 0·388	...	...
441	Stone 11120	+ 4·5302	− 0·0620	...	− 13·380	− 0·488	...	...
442	... ...	+ 3·8673	− 0·0301	...	− 13·711	− 0·407	...	...
443	Stone 11150	+ 3·8646	− 0·0302	...	− 13·777	− 0·405	...	...
444	Stone 11156	+ 3·7100	− 0·0240	...	− 13·819	− 0·387	...	...
445	Stone 11175	+ 4·3183	− 0·0538	...	− 13·932	− 0·448	...	...
446	Stone 11186	+ 3·8100	− 0·0288	...	− 14·039	− 0·392	...	...
447	Stone 11191	+ 4·1679	− 0·0464	...	− 14·069	− 0·429	...	...
448	23 Capricorni θ	+ 3·3748	− 0·0128	+ 0·004	− 14·141	− 0·344	+ 0·05	2733
449	... ...	+ 4·7754	− 0·0859	...	− 14·194	− 0·488	...	...
450	Stone 11227	+ 3·9991	− 0·0388	...	− 14·302	− 0·404	...	...
451	Taylor 9809	+ 3·8433	− 0·0320	...	− 14·521	− 0·382	...	...
452	Taylor 9843	+ 4·1193	− 0·0480	...	− 14·779	− 0·402	...	...
453	Taylor 9889	+ 3·5747	− 0·0217	...	− 15·070	− 0·339	...	...
454	33 Capricorni	+ 3·4126	− 0·0154	− 0·003	− 15·221	− 0·318	+ 0·12	2778
455	Stone 11367	+ 4·7211	− 0·0977	...	− 15·456	− 0·434	...	...

Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
456	R. P. L. 149	7·5	...	21	22	44·14	3	26	56·8	2	0·69
457	Stone 11390	6·0	...	21	25	48·27	135	21	53·9	5	0·75
458	Stone 11403	6·3	...	21	28	41·51	155	20	49·0	5	0·76
459	Stone 11428	6·5	...	21	32	3·73	124	12	14·8	5	0·75
460	Stone 11434	6·7	...	21	32	25·86	133	39	32·0	2	0·69
461	Taylor 10073	7·0	...	21	36	6·41	146	0	23·7	5	0·75
462	Stone 11470	7·3	..	21	37	46·37	128	58	35·3	3	0·71
463	8 Pegasi ε	2·4	...	21	38	26·36	80	39	38·6	20	0·82
464	Taylor 10109	5·8	...	21	40	38·78	137	50	3·2	5	0·75
465	Taylor 10164	6·5	...	21	48	14·60	143	0	53·8	5	0·75
466	Taylor 10172	5·8	...	21	49	19·96	127	48	27·0	5	0·75
467	Stone 11555	6·7	...	21	51	15·87	134	37	5·7	5	0·79
468	... ...	8·3	2	21	52	5·53	132	36	2·3	3	0·70
469	Taylor 10192	5·8	...	21	52	13·27	128	57	12·0	5	0·81
470	Stone 11574	6·9	...	21	53	59·54	127	6	56·5	5	0·76
471	Taylor 10232	6·1	...	21	57	57·30	117	23	18·1	6	0·75
472	Stone 11601	6·9	...	21	58	48·87	134	31	59·0	2	0·70
473	34 Aquarii α	3·2	...	21	59	46·40	90	53	17·0	21	0·85
474	Stone 11610	8·0	...	22	0	9·06	120	11	10·3	5	0·76
475	43 Aquarii θ	4·3	...	22	10	39·50	98	21	56·3	23	0·84
476	48 Aquarii γ	4·1	...	22	15	36·71	91	58	34·3	10	0·75
477	73 Aquarii λ	3·8	...	22	46	30·49	98	12	6·6	15	0·83
478	54 Pegasi α (*Markab*)	2·6	...	22	58	55·91	75	25	27·9	11	0·85
479	6 Piscium γ	3·8	..	23	11	5·91	87	21	24·5	8	0·92
480	R. P. L. 158	5·7	...	23	27	49·68	3	20	16·9	10	0·83

480.—Groombridge 4101.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
456	R. P. L. 149 ...	− 10·9818	− 3·1234	...	− 15·515	+ 1·022	...	...
457	Stone 11390 ...	+ 3·9161	− 0·0416	...	− 15·684	− 0·350	...	...
458	Stone 11403 ...	+ 4·8588	− 0·1166	...	− 15·840	− 0·430	...	...
459	Stone 11428 ...	+ 3·6190	− 0·0265	...	− 16·019	− 0·312	...	...
460	Stone 11434 ...	+ 3·8382	− 0·0389	...	− 16·038	− 0·330	...	...
461	Taylor 10073	+ 4·2368	− 0·0679	...	− 16·230	− 0·357	..	...
462	Stone 11470 ...	+ 3·7012	− 0·0323	...	− 16·315	− 0·308	...	...
463	8 Pegasi ϵ ...	+ 2·9451	− 0·0005	+ 0·001	− 16·348	− 0·242	− 0·01	2835
464	Taylor 10109	+ 3·9157	− 0·0466	...	− 16·459	− 0·320	...	...
465	Taylor 10164	+ 4·0375	− 0·0588	...	− 16·830	− 0·315	...	...
466	Taylor 10172	+ 3·6322	− 0·0309	...	− 16·881	− 0·280	...	...
467	Stone 11555 ...	+ 3·7749	− 0·0407	...	− 16·973	− 0·287	...	...
468	... ...	+ 3·7234	− 0·0375	...	− 17·010	− 0·282	...	...
469	Taylor 10192	+ 3·6442	− 0·0323	...	− 17·017	− 0·275	...	...
470	Stone 11574 ...	+ 3·6009	− 0·0300	...	− 17·099	− 0·269	...	...
471	Taylor 10232	+ 3·4240	− 0·0204	...	− 17·277	− 0·248	...	...
472	Stone 11601 ...	+ 3·7359	− 0·0405	...	− 17·315	− 0·269	...	..
473	34 Aquarii α ...	+ 3·0828	− 0·0041	− 0·001	− 17·358	− 0·219	− 0·00	2890
474	Stone 11610 ...	+ 3·4607	− 0·0228	...	− 17·375	− 0·245	...	...
475	43 Aquarii θ ...	+ 3·1626	− 0·0075	+ 0·006	− 17·814	− 0·205	+ 0·02	2929
476	48 Aquarii γ ...	+ 3·0927	− 0·0042	+ 0·007	− 18·009	− 0·191	− 0·02	2943
477	73 Aquarii λ ...	+ 3·1331	− 0·0063	− 0·002	− 19·032	− 0·137	− 0·04	3019
478	54 Pegasi α ...	+ 2·9808	+ 0·0056	+ 0·003	− 19·346	− 0·107	+ 0·03	3050
479	6 Piscium γ ...	+ 3·0592	+ 0·0005	+ 0·049	− 19·599	− 0·087	− 0·02	3082
480	R. P. L. 158 ...	− 0·1339	− 0·5501	+ 0·084	− 19·857	+ 0·011	+ 0·00	3147

SEPARATE RESULTS
OF
OBSERVATIONS
OF THE FIXED STARS
MADE WITH THE
MADRAS MERIDIAN CIRCLE
IN THE YEAR
1887

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h.	m.	s.	No. of Wires.	Mean Polar Distance 1884. °	′	″	Observer.
1	8 *Ceti ι*								
Jan. 2	...	0	13	31·07	...	99	28	1·1	M
Nov. 14	...		13	30·93	...		28	1·6	R
15	...		13	30·93	...		28	1·9	R
17	..		13	30·96	.		28	2·0	R
23	...		13	30·94	...		28	0·4	R
29	...		13	31·05	..		28	1·7	R
Dec. 1	...		13	31·04	...		28	1·5	R
3	...		13	31·16	...		28	2·5	M
4	...		13	31·02	...		28	3·1	M
11	...		13	30·97	...		28	2·6	M
12	...		13	31·04	...		28	3·2	M
23	...		13	30·99	...		28	0·1	R
24	...		13	31·05	...		28	1·3	R
2	12 *Ceti.*								
Jan. 2	...	0	24	7·14	...	94	35	54·4	M
3	...		24	7·16	...		35	55·5	M
3	16 *Ceti β*								
Jan. 1	...	0	37	46·10	...	108	37	25·1	M
2	...		37	45·87	...		37	26·5	M
4	58 *Piscium.*								
Nov. 15	...	0	40	58·25	...	78	39	32·8	R
5	63 *Piscium δ*								
Jan. 2	...	0	42	39·68	...	83	2	47·6	M
3	...		42	39·72	...		2	48·0	M
5	...		42	39·91	...		2	47·2	M
6	*R. P. L.* 10.								
Jan. 3	...	0	51	41·18	2	1	35	54·6	M
Oct. 23	...		51	42·08	3		35	53·6	M
Nov. 17	...		51	44·22	3		35	55·0	R
18	...		51	43·31	3		35	56·6	R
26	...		51	40·13	3		35	53·3	R
29	...		51	41·05	3		35	55·2	R
Dec. 3	...		51	41·29	3		35	54·4	M
4	...		51	41·98	3		35	54·4	M
Dec. 11	...	0	51	42·18	2	1	35	54·5	M
12	...		51	41·56	3		35	55·1	M
23	...		51	41·40	3		35	54·5	R
26	...		51	42·05	3		35	52·7	R
27	...		51	41·33	3		35	54·3	R
29	...		51	42·22	3		35	54·5	M
31	...		51	41·98	3		35	54·4	M
	R. P. L. 10—*s.p.*								
Apl. 24	...	0	51	41·15	3	1	35	55·8	R
7	2 *Ursæ Minoris.*								
Jan. 2	...	0	53	5·22	3	4	21	55·9	M
8	*R. P. L.* 14—*s.p*								
Apl. 17	...	0	56	46·76	3	8	28	28·5	R
9	43 *Andromedæ β, Mirach.*								
Jan. 5	...	1	3	14·32	...	54	59	40·1	M
7	...		3	14·39	...		59	40·6	M
Nov. 15	...		3	14·28	...		59	41·1	R
17	...		3	14·22	...		59	41·5	R
18	..		3	14·20	..		59	43·2	R
26	...		3	14·31	...		59	40·3	R
29	...		3	14·24	...		59	40·5	R
Dec. 1	...		3	14·27	...		59	39·9	R
29	...		3	14·33	...		59	42·2	M
30	...		3	14·26	...		59	40·6	M
31	...		3	14·30	...		59	39·7	M
10	*R. P. L.* 18.								
Nov. 17	...	1	13	54·77	3	2	2	32·0	R
18	...		13	54·15	3		2	35·8	R
11	1 *Ursæ Minoris a, Polaris.*								
Jan. 8	...	1	16	13·52	3	1	18	35·5	M
9	...		16	13·39	3		18	33·6	M
Nov. 26	...		16	12·52	3		18	33·5	R

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h.	m.	s.	No. of Wires.	Mean Polar Distance 1884. °	′	″	Observer.
	1 *Ursæ Minoris* α, *Polaris—s.p.*								
Apl. 22	...	1	16	13·04	3	1	18	36·2	R
24	...		16	13·62	3		18	38·6	R
25	...		16	12·01	3		18	37·6	R
12	99 *Piscium* η								
Jan. 1	...	1	25	16·45	...	75	15	8·9	M
13	*Lalande* 2806.								
Dec. 23	8·5	1	26	36·10	..	77	26	5·7	R
24	8·5		26	36·27	...		26	6·3	R
26	8·5		26	36·24	...		26	6·6	R
27	8·5		26	36·24	...		26	6·8	R
29	8·5		26	36·23	...		26	9·3	M
14	110 *Piscium* ο								
Nov. 18	...	1	39	16·23	...	81	25	35·4	R
22	...		39	16·05	...		25	34·4	R
26	...		39	16·08	...		25	34·8	R
29	...		39	16·12	...		25	34·5	R
Dec. 1	...		39	16·11	...		25	33·7	R
3	...		39	16·12	...		25	35·7	M
4	...		39	16·12	...		25	36·3	M
11	...		39	16·06	...		25	36·7	M
12	...		39	16·03	...		25	36·2	M
23	...		39	16·10	...		25	33·7	R
15	8 *Arietis* ι								
Jan. 7	...	1	51	0·69	...	72	44	56·9	M
8	...		51	0·71	...		44	57·9	M
16	13 *Arietis* α								
Jan. 1	...	2	0	37·93	...	67	5	11·7	M
2	...		0	38·10	...		5	13·3	M
17	67 *Ceti.*								
Jan. 1	...	2	11	11·88	...	96	57	26·9	M
2	...		11	11·86	...		57	25·9	M
3	...		11	11·83	...		57	26·3	M
5	...		11	11·81	...		57	27·4	M
18	*R. P. L.* 26.								
Jan. 2	...	2	27	44·64	3	3	27	32·5	M
19	43 *Arietis* σ								
Jan. 5	...	2	45	5·34	...	75	23	45·9	M
7	...		45	5·29	...		23	47·5	M
8	...		45	5·41	...		23	46·7	M
Nov. 18	...		45	5·28	...		23	46·8	R
22	...		45	5·37	...		23	45·7	R
26	...		45	5·31	...		23	45·7	R
Dec. 3	...		45	5·21	...		23	46·3	M
4	...		45	5·26	...		23	45·9	M
11	...		45	5·32	...		23	46·1	M
12	...		45	5·26	...		23	47·3	M
23	...		45	5·27	...		23	47·0	R
24	...		45	5·26	...		23	45·4	R
26	...		45	5·25	...		23	47·1	R
20	*Stone* 1223.								
Jan. 2	...	2	52	29·74	...	154	28	29·6	M
8	...		52	29·79	...		28	30·9	M
21	92 *Ceti* α, *Menkar.*								
Jan. 9	...	2	56	12·98	..	86	21	59·3	M
10	...		56	12·98	...		21	59·6	M
22	57 *Arietis* δ								
Jan. 5	...	3	4	59·71	...	70	42	45·8	M
10	...		4	59·80	...		42	45·6	M
21	...		4	59·86	...		42	46·9	M
22	...		4	59·79	...		42	46·7	M
23	...		4	59·78	...		42	46·5	M
24	...		4	59·68	...		42	46·5	M
Dec. 3	...		4	59·64	...		42	47·2	M
4	...		4	59·69	...		42	48·3	M
23	*R. P. L.* 33.—*s.p.*								
June 21	...	3	5	1·34	2	5	30	11·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	m.	s.		°	′	″	
24	1 *Tauri o, Var.* 5.								
Jan. 2	...	3	18	34·23	...	81	22	48·8	M
7	...		18	34·33	...		22	49·5	M
9	...		18	34·28	...		22	49·8	M
21	...		18	34·13	...		22	49·6	M
22	...		18	34·29	5		22	47·4	M
23	...		18	34·36	1		22	48·0	M
25	*R. P. L.* 34—*s.p.*								
June 20	...	3	28	39·17	3	3	43	19·7	M
24	...		28	38·72	3		43	18·0	R
28	...		28	40·53	3		43	17·3	R
26	25 *Tauri η, Alcyone.*								
Jan. 2	...	3	40	35·36	...	66	15	19·2	M
5	...		40	35·29	...		15	18·5	M
27	34 *Eridani* γ^1								
Jan. 7	...	3	52	36·98	...	103	50	23·5	M
8	...		52	37·12	...		50	23·3	M
9	...		52	37·05	...		50	24·1	M
10	...		52	36·91	...		50	23·5	M
21	...		52	37·11	...		50	21·3	M
22	...		52	36·96	...		50	23·0	M
28	*R. P. L.* 35.								
Jan. 7	...	4	0	29·79	3	4	45	6·5	M
9	...		0	31·11	3		45	10·1	M
21	...		0	31·88	3		45	6·6	M
22	...		0	30·43	3		45	8·6	M
29	74 *Tauri* ε								
Jan. 7	...	4	21	50·62	...	71	4	39·7	M
8	...		21	50·42	...		4	42·0	M
9	...		21	50·46	...		4	41·0	M
30	87 *Tauri α, Aldebaran.*								
Jan. 7	...	4	29	15·73	...	73	43	28·9	M
9	...		29	15·79	...		43	29·3	M
21	...		29	15·83	...		43	30·8	M

Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	m.	s.		°	′	″	
31	19 *Orionis β, Rigel.*								
Jan. 9	...	5	8	57·81	...	98	20	13·8	M
32	112 *Tauri β*								
Jan. 8	...	5	18	57·45	...	61	29	34·1	M
33	*R. P. L.* 40.								
Jan. 9	...	5	24	55·15	3	4	51	57·1	M
21	...		24	56·66	3		51	56·5	M
22	...		24	55·66	3		51	55·9	M
34	34 *Orionis δ, Var.* 1.								
Jan. 24	...	5	26	4·84	...	90	23	5·4	M
28	...		26	4·88	...		23	8·9	M
35	*R. P. L.* 41.								
Jan. 23	...	5	29	32·98	3	4	44	55·9	M
36	46 *Orionis* ε								
Jan. 24	...	5	30	19·76	...	91	16	38·9	M
37	58 *Orionis α, Var.* 2, *Betelgeux.*								
Jan. 21	...	5	48	53·49	...	82	36	58·5	M
22	...		48	53·46	...		36	57·3	M
23	...		48	53·42	...		36	57·2	M
24	...		48	53·37	...		36	57·2	M
28	...		48	53·39	...		36	58·4	M
30	...		48	53·47	...		36	56·7	M
31	...		48	53·42	...		36	56·8	M
Feb. 2	...		48	53·66	...		36	56·5	R
5	...		48	53·54	...		36	56·5	R
38	*R. P. L.* 43.								
Jan. 21	...	6	0	56·40	3	3	14	15·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	*m.*	*s.*		°	′	″	
	R. P. L. 43—*s.p.*								
June 21	...	6	0	54·75	3	3	14	16·9	M
July 18	...		0	55·39	3		14	19·9	M
39	13 *Geminorum μ*								
Jan. 30	...	6	15	56·51	...	67	25	42·8	M
40	*Anon.*								
Jan. 22	8·0	6	36	52·07	4	130	22	0·1	M
41	51 *Cephei* (*Hev.*).								
Jan. 21	...	6	45	47·62	3	2	46	28·6	M
23	...		45	46·58	3		46	28·8	M
24	...		45	47·16	3		46	28·5	M
26	...		45	46·91	3		46	29·8	M
	51 *Cephei* (*Hev.*)—*s.p.*								
Aug. 7	...	6	45	46·47	3	2	46	33·4	R
13	...		45	46·46	3		46	32·5	R
19	...		45	46·46	3		46	27·0	R
20	...		45	45·95	2		46	31·4	R
42	*Anon.*								
Jan. 30	10·0	6	52	58·09	6	152	55	52·5	M
43	21 *Canis Majoris ε*								
Jan. 28	...	6	54	4·01	...	118	48	53·4	M
44	23 *Canis Majoris γ*								
Jan. 22	...	6	58	30·73	...	105	27	44·5	M
45	*Anon.*								
Jan. 24	9·0	7	1	47·71	...	60	51	51·2	M
46	10 *Canis Minoris α, Procyon.*								
Jan. 30	...	7	33	13·74	...	84	28	42·5	M
47	*R. P. L.* 45—*s.p.*								
Sep. 13	...	7	39	55·27	3	1	1	32·9	R
16	...		39	54·36	3		1	34·6	M
Oct. 3	...		39	55·84	3		1	32·8	M
6	...		39	53·74	3		1	31·8	M
7	...		39	52·74	2		1	32·0	M
8	...		39	53·74	3		1	33·3	M
9	...		39	54·11	3		1	33·7	M
10	...		39	54·63	3		1	32·8	M
48	*ξ Argûs.*								
Jan. 31	...	7	44	25·03	...	114	34	8·3	M
Feb. 2	...		44	24·89	...		34	9·6	R
5	...		44	24·89	...		34	8·7	R
7	...		44	24·82	...		34	7·0	R
13	...		44	24·89	...		34	8·6	R
16	...		44	24·82	...		34	9·5	R
19	...		44	24·92	...		34	9·1	R
22	...		44	24·80	...		34	8·8	R
26	...		44	24·70	...		34	8·4	R
29	...		44	24·72	...		34	8·3	R
49	*R. P. L.* 48—*s.p.*								
Sep. 10	...	7	47	5·92	3	3	58	16·4	R
11	...		47	5·41	3		58	15·9	R
24	...		47	5·80	3		58	15·4	M
Oct. 4	...		47	5·94	3		58	15·1	M
50	*R. P. L.* 49.								
Jan. 30	...	7	49	0·68	3	5	36	38·9	M
31	...		49	0·52	3		36	38·7	M
	R. P. L. 49—*s.p.*								
Aug. 18	...	7	48	59·77	3	5	36	35·9	R
Oct. 11	...		49	0·99	3		36	41·7	M
13	...		49	0·91	3		36	42·9	M
51	15 *Argûs ρ*								
Jan. 31	...	8	2	36·18	...	113	58	14·3	M
Feb. 2	...		2	36·08	...		58	14·2	R
5	...		2	36·16	...		58	13·4	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	*m.*	*s.*		°	′	″	
Feb. 7	...	8	2	36·10	...	113	58	12·7	R
9	...		2	36·15	...		58	12·3	R
13	...		2	36·15	...		58	13·7	R
16	...		2	36·19	...		58	13·4	R
19	...		2	36·11	...		58	13·8	R
22	...		2	36·10	...		58	14·0	R
52	*R. P. L.* 53—*s.p.*								
Sep. 10	...	8	20	54·38	3	4	32	26·5	R
24	...		20	55·95	3		32	25·6	M
53	33 *Cancri η*								
Feb. 5	...	8	26	0·03	...	69	9	55·5	R
7	...		26	0·14	...		9	55·3	R
54	*R. P. L.* 55—*s.p.*								
Oct. 2	...	8	31	44·57	3	5	41	4·5	M
8	...		31	45·98	3		41	2·9	M
55	11 *Hydræ ε*								
Feb. 7	...	8	40	37·96	...	83	9	21·2	R
9	...		40	37·95	...		9	22·4	R
56	*R. P. L.* 60.								
Feb. 2	...	8	50	57·75	3	5	21	21·7	R
5	...		50	57·72	3		21	23·2	R
	R. P L. 60—*s.p.*								
Sep. 10	...	8	50	57·40	3	5	21	22·8	R
24	...		50	57·17	3		21	24·4	M
Oct. 3	...		50	57·70	3		21	20·6	M
57	65 *Cancri α*								
Feb. 9	...	8	52	8·54	...	77	41	38·1	R
58	*Anon.*								
Feb. 7	9·0	8	54	40·51	...	132	59	53·3	R
59	76 *Cancri κ*								
Feb. 9	...	9	1	27·81	...	78	51	57·0	R
60	83 *Cancri.*								
Feb. 13	...	9	12	30·47	...	71	48	10·2	R
16	...		12	30·46	...		48	11·7	R
61	*R. P. L.* 62—*s.p.*								
Oct. 1	...	9	21	48·85	3	2	21	41·0	M
3	...		21	49·26	3		21	47·1	M
4	...		21	48·82	3		21	46·1	M
8	...		21	48·19	3		21	47·0	M
62	30 *Hydræ α, Var.* 2.								
Sep. 18	...	9	21	53·17	...	98	9	22·7	R
19	...		21	53·33	...		9	22·0	R
63	2 *Leonis ω*								
Feb. 9	...	9	22	14·70	...	80	26	16·3	R
64	*Lacaille* 3980.								
Feb. 7	9·0	9	35	5·72	...	148	39	5·2	R
65	*R. P. L.* 69—*s.p.*								
Oct. 1	...	9	39	8·47	3	2	52	12·1	M
6	...		39	10·78	3		52	12·0	M
66	17 *Leonis ε*								
Feb. 22	...	9	39	16·20	...	65	41	32·4	R
26	...		39	16·08	...		41	32·1	R
67	*R. P. L.* 70.								
Feb. 7	...	9	49	50·02	3	5	31	24·3	R
9	...		49	49·98	3		31	25·2	R
13	...		49	49·59	3		31	23·0	R
16	...		49	49·76	3		31	23·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h.	m.	s.	No. of Wires.	Mean Polar Distance 1884. °	′	″	Observer.
	R. P. L. 70.—*s.p.*								
Sep. 24	...	9	49	50·82	3	5	31	27·2	M
68	32 *Leonis a, Regulus.*								
Feb. 26	...	10	2	11·67	...	77	27	56·7	R
29	...		2	11·60	...		27	54·9	R
Apl. 16	...		2	11·56	...		27	55·4	R
69	*R. P. L.* 72.								
Apl. 17	...	10	12	36·53	3	5	9	35·4	R
18	...		12	36·64	3		9	35·1	R
21	...		12	36·46	3		9	36·1	R
22	...		12	37·30	3		9	35·4	R
	R. P. L. 72.—*s.p.*								
Sep. 24	...	10	12	36·87	3	5	9	36·9	M
Oct. 1	...		12	36·66	3		9	37·1	M
70	41 *Leonis* γ^1								
Feb. 29	...	10	13	34·54	...	69	34	19·5	R
Apl. 16	...		13	34·56	...		34	19·6	R
19	...		13	34·56	...		34	19·0	R
71	*W. B. E.* X. 336.								
Apl. 16	9·0	10	21	7·84	...	92	27	41·8	R
18	9·0		21	7·69	...		27	40·8	R
19	9·0		21	7·81	...		27	41·4	R
22	9·0		21	7·59	..		27	41·0	R
24	9·0		21	7·60	...		27	41·2	R
72	*Anon.*								
Apl. 17	7·5	10	21	42·27	...	92	55	39·1	R
21	7·5		21	42·17	...		55	39·6	R
23	...		21	42·02	...		55	38·8	R
25	7·5		21	42·27	...		55	38·4	R
26	7·5		21	42·29	...		55	38·9	R
73	47 *Leonis* ρ								
Apl. 17	...	10	26	42·18	...	80	5	47·6	R
74	*Yarnall* 4465.								
Apl. 28	5·6	10	37	6·32	...	66	12	16·4	R
29	5·6		37	6·41	...		12	15·5	R
30	5·6		37	6·43	4		12	16·0	R
May 1	5·6		37	6·35	...		12	17·5	M
2	5·6		37	6·45	...		12	17·7	M
75	*Anon.*								
Apl. 16	9·0	10	39	7·37	...	65	48	41·5	R
17	9·0		39	7·35	...		48	41·3	R
22	9·0		39	6·89	...		48	41·2	R
24	9·0		39	7·08	...		48	39·4	R
76	*Anon.*								
Apl. 18	9·0	10	41	36·80	...	66	3	1·2	R
21	9·0		41	37·02	...		3	1·0	R
23	9·0		41	36·81	...		2	59·8	R
25	9·0		41	36·86	...		2	59·7	R
26	9·0		41	36·83	...		2	59·7	R
77	53 *Leonis l.*								
Apl. 17	...	10	43	9·55	...	78	50	26·9	R
78	63 *Leonis* χ								
Apl. 16	...	10	59	1·97	...	82	2	12·4	R
17	...		59	1·98	...		2	12·5	R
79	*R. P. L.* 79.—*s.p.*								
Oct. 1	...	11	0	33·92	3	1	43	49·0	M
2	...		0	33·57	3		43	47·4	M
4	...		0	33·08	2		43	49·1	M
6	...		0	32·54	3		43	46·6	M
8	...		0	31·96	3		43	48·6	M
9	...		0	32·36	3		43	48·6	M
10	...		0	33·41	3		43	47·0	M
80	68 *Leonis* δ								
Apl. 18	...	11	7	56·37	...	68	50	27·6	R
19	...		7	56·27	...		50	27·8	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	m.	s.		°	′	″	
81	*84 Leonis τ*								
Apl. 22	...	11	21	58·26	...	86	30	17·4	R
23	...		21	58·25	...		30	16·4	R
24	...		21	58·25	...		30	15·9	R
25	...		21	58·24	...		30	16·5	R
26	...		21	58·27	...		30	16·4	R
28	...		21	58·26	...		30	16·8	R
29	...		21	58·27	...		30	16·3	R
30	...		21	58·24	...		30	17·8	R
May 1	...		21	58·32	...		30	19·3	M
2	...		21	58·29	...		30	18·8	M
82	*94 Leonis β*								
Apl. 18	...	11	43	8·59	...	74	46	45·7	R
83	*R. P. L. 87—s.p.*								
Oct. 27	...	11	53	36·38	3	2	21	29·9	M
28	...		53	36·78	3		21	31·2	M
Nov. 26	...		53	35·17	3		21	35·3	R
29	...		53	34·33	3		21	34·0	R
Dec. 1	...		53	34·36	3		21	35·1	R
84	*8 Virginis π*								
Apl. 22	...	11	54	55·73	...	82	44	18·8	R
23	...		54	55·70	...		44	17·8	R
24	...		54	55·70	...		44	16·7	R
25	...		54	55·77	...		44	17·3	R
26	...		54	55·72	...		44	17·4	R
28	...		54	55·68	...		44	18·8	R
29	...		54	55·71	...		44	17·8	R
30	...		54	55·65	...		44	18·2	R
May 1	...		54	55·69	...		44	19·9	M
2	...		54	55·74	..		44	18·5	M
85	*Anon.*								
Apl. 26	9·0	11	58	39·53	...	86	44	0·8	R
28	9·0		58	39·58	...		44	3·1	R
29	9·0		58	39·66	...		44	2·2	R
30	9·0		58	39·71	...		44	2·6	R
May 1	9·0		58	39·67	...		44	1·9	M
86	*R. P. L.* 89.								
Apl. 16	...	11	58	51·10	3	3	46	10·4	R
17	...		58	53·71	3		46	9·7	R
18	...		58	53·98	3		46	10·2	R
19	...		58	53·72	3		46	11·6	R
	R. P. L. 89—s.p.								
Nov. 17	...	11	58	48·49	3	3	46	18·9	R
18	...		58	48·12	2		46	10·4	R
87	*2 Corvi ε*								
Apl. 18	...	12	4	9·43	...	111	58	25·6	R
88	*R. P. L.* 92.								
Apl. 17	...	12	13	27·27	3	2	55	6·8	R
	R. P. L. 92—s.p.								
Oct. 28	...	12	13	27·27	3	2	55	8·3	M
Nov. 26	...		13	27·98	3		55	12·2	R
89	*15 Virginis η*								
Apl. 16	...	12	13	58·22	...	90	1	20·0	R
19	...		13	58·23	...		1	20·4	R
21	...		13	58·19	...		1	19·0	R
90	*R. P. L.* 93.								
Apl. 22	...	12	14	20·80	3	1	39	24·6	R
	R. P. L. 93--s.p.								
Nov. 18	...	12	14	22·58	3	1	39	28·1	R
91	*Lalande* 23300.								
Apl. 16	8·7	12	21	50·01	...	91	44	16·0	R
17	8·7		21	49·93	...		44	15·3	R
18	8·7		21	49·82	..		44	15·9	R
19	8·7		21	49·75	...		44	16·0	R
21	8·7		21	49·74	...		44	16·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	m.	s.		°	′	″	
92	*R. P. L.* 97—*s.p.*								
Oct. 28	...	12	37	34·07	3	5	43	8·3	M
93	*R. P. L.* 99.								
Apl. 17	...	12	48	16·79	3	5	57	22·4	R
18	...		48	16·62	3		57	22·5	R
94	47 *Virginis ε, Vindemiatrix.*								
Apl. 22	...	12	56	24·18	...	78	25	0·7	R
23	...		56	24·21	...		24	59·9	R
24	...		56	24·19	...		24	58·7	R
25	...		56	24·15	...		24	59·0	R
26	...		56	24·16	...		24	59·8	R
28	...		56	24·21	...		24	59·6	R
29	...		56	24·17	...		24	59·4	R
30	...		56	24·26	...		24	59·5	R
May 1	...		56	24·13	...		25	1·5	M
2	..		56	24·12	...		25	1·7	M
95	*R. P. L.* 100—*s.p.*								
Dec. 3	...	13	0	23·49	3	3	29	27·2	M
4	...		0	23·39	3		29	28·6	M
11	...		0	23·44	3		29	31·3	M
12	...		0	23·50	3		29	33·4	M
23	...		0	23·18	3		29	29·2	R
96	*R. P. L.* 101—*s.p.*								
Jan. 2	...	13	6	56·98	3	1	43	41·7	M
3	...		6	57·55	3		43	39·9	M
Dec. 26	...		6	57·81	3		43	42·8	R
27	...		6	56·80	3		43	41·6	R
97	67 *Virginis α, Spica.*								
Apl. 21	...	13	19	4·82	...	100	33	18·2	R
98	*R. P. L.* 103.								
Apl. 26	...	13	19	18·47	3	4	38	19·0	R
28	...		19	19·76	3		38	18·8	R
	R. P. L. 103—*s.p.*								
Jan. 2	...	13	19	21·20	3	4	38	24·8	M
3	...		19	20·55	3		38	20·3	M
Nov. 29	...		19	19·65	3		38	19·2	R
Dec. 1	...		19	21·47	3		38	22·4	R
3	...		19	18·61	3		38	20·4	M
4	...		19	20·96	3		38	22·9	M
11	...		19	20·28	3		38	20·3	M
99	8 *Bootis η*								
Apl. 21	...	13	49	9·81	...	71	1	13·0	R
100	93 *Virginis τ*								
June 21	...	13	55	44·66	...	87	53	35·1	M
24	...		55	44·73	...		53	34·9	R
101	*R. P. L.* 108.								
June 21	...	14	1	20·48	2	3	41	9·6	M
28	...		1	22·89	3		41	10·7	R
102	16 *Bootis α, Arcturus.*								
June 20	...	14	10	22·30	...	70	12	44·0	M
24	...		10	22·18	...		12	46·1	R
25	...		10	22·15	...		12	46·6	R
103	25 *Bootis ρ*								
June 20	...	14	26	49·78	...	53	7	5·7	M
104	36 *Bootis* ϵ^2, *Mirac.*								
June 20	...	14	39	55·23	...	62	26	8·1	M
21	...		39	55·13	...		26	10·4	M
23	...		39	55·18	...		26	11·0	R
24	...		39	55·13	...		26	8·0	R
105	9 *Libræ* α^2								
June 21	...	14	44	27·86	...	105	33	28·6	M
25	...		44	27·79	...		33	28·2	R
26	...		44	27·78	...		33	26·9	M

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		h.	*m.*	*s.*		°	′	″	
106 *T Trianguli Australis, Var.*									
June 24	7·0	14	58	57·30	...	158	16	20·3	R
25	...		58	57·22	3		16	21·5	R
107 *R. P. L.* 111.									
June 24	...	15	3	26·58	3	5	35	58·8	R
28	...		3	27·89	3		36	0·8	R
July 14	...		3	27·02	3		35	58·9	M
17	...		3	27·43	3		35	58·1	M
18	...		3	26·88	3		35	58·5	M
R. P. L. 111.—*s.p.*									
Jan. 8	...	15	3	27·42	3	5	36	6·1	M
9	...		3	27·21	3		36	3·8	M
108 27 *Libræ β*									
June 20	...	15	10	45·85	...	98	57	14·8	M
25	...		10	45·82	...		57	14·3	R
26	...		10	45·89	...		57	14·2	R
109 *Redhill* 2293.—*s.p.*									
Nov. 29	...	15	11	46·31	3	4	25	39·8	R
110 *R. P. L.* 114.									
July 14	...	15	15	0·57	3	2	19	22·1	M
17	...		14	59·64	3		19	20·8	M
111 5 *Coronæ Borealis a, Alpheta.*									
June 26	...	15	29	46·48	...	62	53	34·7	R
July 14	...		29	46·45	...		53	40·0	M
18	...		29	46·43	...		53	40·3	M
19	...		29	46·53	...		53	40·7	M
22	...		29	46·63	...		53	37·3	M
23	...		29	46·49	...		53	38·7	M
24	...		29	46·62	...		53	39·1	M
112 24 *Serpentis a*									
June 21	...	15	38	33·31	...	83	12	30·4	M
28	...		38	33·28	...		12	31·2	R
July 14	...		38	33·33	...		12	32·6	M
17	...		38	33·29	...		12	30·6	M
18	...		38	33·30	...		12	31·2	M
19	...		38	33·36	...		12	31·7	M
22	...		38	33·20	...		12	33·1	M
23	...		38	33·31	...		12	33·5	M
24	...		38	33·30	...		12	30·4	M
25	...		38	33·33	...		12	30·9	M
113 *R. P. L.* 115.									
June 20	...	15	45	12·50	3	4	47	32·4	M
114 16 *Ursæ Minoris ζ*									
June 21	...	15	48	13·52	...	11	50	55·6	M
115 8 *Scorpii β*¹									
June 21	...	15	58	41·51	...	109	29	10·9	M
23	...		58	41·62	...		29	10·7	R
28	...		58	41·64	...		29	11·7	R
July 14	...		58	41·66	...		29	12·1	M
17	...		58	41·55	...		29	12·8	M
116 *R. P. L.* 116.									
June 24	...	16	0	34·48	3	4	22	0·4	R
R. P. L. 116.—*s.p.*									
Jan. 8	...	16	0	36·07	3	4	22	4·7	M
117 1 *Ophiuchi δ*									
June 20	...	16	8	15·91	...	98	23	39·0	M
23	...		8	15·95	...		23	40·2	R
118 21 *Scorpii a, Antares.*									
June 20	...	16	22	17·68	...	116	10	23·2	M
21	...		22	17·82	...		10	25·9	M

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		h.	*m.*	*s.*		°	′	″	
119	*40 Herculis ζ*								
June 21	...	16	36	54·62	...	58	11	11·0	M
28	...		36	54·73	...		11	11·3	R
July 14	...		36	54·77	...		11	11·9	M
120	*22 Ursæ Minoris ϵ—s.p.*								
Jan. 7	...	16	57	53·10	5	7	46	30·4	M
121	*R. P. L.* 118.								
July 14	...	17	1	48·75	3	5	8	39·2	M
122	*G. Z. C.* XVII. 421.								
Aug. 23	...	17	7	0·73	...	130	55	11·6	R
123	64 *Herculis a, Var.* 1.								
July 14	...	17	9	21·44	...	75	28	34·5	M
17	...		9	21·41	...		28	33·7	M
18	...		9	21·52	...		28	33·6	M
124	*Anon.*								
Aug. 18	9·0	17	14	42·41	...	126	23	49·7	R
20	9·0		14	42·56	...		23	49·2	R
21	9·0		14	42·42	...		23	49·3	R
23	9·0		14	42·36	...		23	49·1	R
26	9·0		14	42·35	4		23	48·5	R
125	*Taylor* 8070.								
Aug. 20	6·5	17	21	5·37	...	126	40	45·8	R
21	6·5		21	5·36	...		40	45·8	R
23	6·5		21	5·18	...		40	45·8	R
26	6·5		21	5·16	...		40	48·6	R
Sep. 1	6·5		21	5·07	...		40	46·0	R
126	35 *Scorpii λ*								
Aug. 20	...	17	25	44·15	...	127	1	3·0	R
25	...		25	44·06	...		1	4·7	R
26	...		25	44·12	...		1	4·8	R
Sep. 1	...		25	43·86	...		1	2·5	R
127	*Stone* 9578.								
Aug. 21	...	17	28	15·11	...	146	44	40·0	R
23	...		28	14·88	...		44	40·7	R
128	55 *Ophiuchi a*								
June 20	...	17	29	32·99	...	77	21	17·6	M
129	*R. P. L.* 120.								
June 21	...	17	31	35·22	3	5	17	25·2	M
July 18	...		31	35·79	3		17	26·6	M
130	*Anon.*								
Sep. 1	7·5	17	34	30·28	...	125	44	21·4	R
8	7·5		34	30·40	...		44	21·6	R
10	7·5		34	30·35	...		44	22·1	R
11	7·5		34	30·28	...		44	22·4	R
13	7·5		34	30·40	4		44	24·4	R
131	60 *Ophiuchi β*								
Aug. 18	...	17	37	44·45	...	85	22	58·2	R
19	...		37	44·44	...		22	58·9	R
20	...		37	44·52	...		22	57·9	R
21	...		37	44·45	...		22	58·9	R
23	...		37	44·50	...		23	0·1	R
25	...		37	44·45	...		23	0·8	R
26	...		37	44·47	...		22	57·9	R
Sep. 10	...		37	44·49	...		22	57·7	R
11	..		37	44·48	...		22	57·9	R
13	...		37	44·58	...		22	59·2	R
132	86 *Herculis μ*								
July 22	...	17	41	55·12	...	62	12	41·3	M
23	...		41	55·23	...		12	37·0	M
24	...		41	55·00	...		12	36·9	M
25	...		41	54·95	...		12	37·7	M
133	*Anon.*								
July 26	8·5	17	42	56·34	...	143	28	18·1	M
Aug. 5	8·0		42	56·53	4		28	21·4	R

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134	72 *Ophiuchi.*								
Aug. 18	...	18	1	50·93	...	80	27	5·3	R
19	...		1	50·95	...		27	5·1	R
20	...		1	50·95	...		27	6·1	R
23	...		1	50·99	...		27	5·3	R
25	...		1	50·97	...		27	7·7	R
26	...		1	50·97	...		27	4·8	R
28	...		1	50·99	...		27	7·7	R
Sep. 1	...		1	51·05	...		27	5·0	R
8	...		1	50·97	...		27	4·0	R
10	...		1	50·99	...		27	3·9	R
135	*Taylor* 8410.								
July 22	...	18	4	38·71	...	113	43	25·9	M
23	...		4	38·71	...		43	24·7	M
26	...		4	38·65	6		43	19·9	M
Aug. 4	...		4	38·63	...		43	23·4	R
5	...		4	38·56	...		43	24·0	R
136	13 *Sagittarii* μ^1								
July 19	...	18	6	49·47	...	111	5	16·3	M
137	*Stone* 9951.								
Aug. 7	6·0	18	8	27·43	...	153	55	3·2	R
8	6·0		8	27·48	5		55	3·5	R
12	6·0		8	27·07	...		55	5·2	R
13	6·0		8	27·04	...		55	3·7	R
15	6·0		8	27·27	...		55	4·8	R
138	23 *Ursæ Minoris* δ —*s.p.*								
Jan. 21	...	18	9	45·04	3	3	23	27·3	M
22	...		9	43·78	3		23	24·5	M
23	...		9	44·27	3		23	26·9	M
24	...		9	45·05	3		23	24·7	M
28	...		9	44·54	3		23	25·7	M
30	...		9	44·07	3		23	23·1	M
31	...		9	44·75	3		23	22·8	M
Feb. 2	...		9	44·26	3		23	24·8	R
5	...		9	44·13	3		23	23·1	R
139	*Taylor* 8440.								
July 22	...	18	12	31·91	...	151	32	38·5	M
Aug. 7	...		12	32·37	5		32	40·2	R
8	...		12	32·28	...		32	40·6	R
11	...		12	32·10	...		32	41·1	R
12	...		12	32·09	...		32	40·8	R
140	24 *Ursæ Minoris.*								
Aug. 18	...	18	13	42·84	3	3	0	33·2	R
19	...		13	44·17	3		0	34·2	R
20	...		13	43·48	3		0	34·6	R
Sep. 11	...		13	43·59	3		0	33·4	R
13	...		13	44·82	3		0	33·2	R
16	...		13	44·78	3		0	31·4	M
24	...		13	43·55	3		0	31·7	M
	24 *Ursæ Minoris* —*s.p.*								
Jan. 31	...	18	13	42·81	3	3	0	35·7	M
Feb. 7	...		13	42·80	3		0	37·0	R
141	*Taylor* 8454								
July 18	6·0	18	15	1·32	...	126	43	21·1	M
23	6·0		15	1·35	...		43	19·4	M
25	6·0		15	1·35	5		43	19·0	M
Aug. 2	6·0		15	1·27	...		43	19·4	R
4	6·0		15	1·39	...		43	18·4	R
142	*Stone* 10042.								
July 19	6·5	18	20	24·35	...	119	53	9·4	M
22	7·0		20	24·41	...		53	8·7	M
23	7·0		20	24·34	...		53	7·6	M
Aug. 4	6·7		20	24·57	...		53	8·2	R
7	6·7		20	24·47	...		53	7·1	R
143	22 *Sagittarii* λ								
Aug. 2	...	18	20	48·80	...	115	29	2·0	R
5	...		20	48·89	...		29	2·1	R

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		h.	*m.*	*s.*		°	′	″	
144		*Taylor* 8520.							
July 18	6·0	18	25	11·22	...	142	58	27·5	M
22	6·0		25	11·15	4		58	26·7	M
Aug. 7	6·0		25	11·52	...		58	26·9	R
8	6·0		25	11·49	...		58	28·5	R
145		*Stone* 10137.							
July 22	6·5	18	31	2·46	5	154	44	41·8	M
Aug. 12	6·0		31	2·43	...		44	45·5	R
13	6·0		31	2·37	...		44	45·6	R
16	6·0		31	2·43	...		44	45·5	R
18	6·0		31	2·35	...		44	45·0	R
146		3 *Lyræ a, Vega.*							
July 23	...	18	33	0·50	...	51	19	24·8	M
26	...		33	0·61	...		19	22·9	M
Aug. 4	...		33	0·39	...		19	21·8	R
5	...		33	0·34	...		19	24·2	R
7	...		33	0·50	...		19	24·4	R
8	...		33	0·46	...		19	23·9	R
147		*Stone* 10173.							
Aug. 15	6·0	18	34	36·91	...	151	12	21·9	R
19	6·0		34	37·00	...		12	25·1	R
23	6·0		34	37·20	5		12	25·1	R
28	6·0		34	37·27	...		12	25·0	R
Sep. 1	6·0		34	37·30	5		12	20·9	R
148		*Taylor* 8603.							
July 22	7·0	18	37	59·75	...	140	12	44·9	M
25	...		37	59·66	...		12	46·2	M
Aug. 2	5·0		37	59·59	...		12	45·2	R
4	5·0		37	59·64	...		12	43·9	R
8	5·0		37	59·80	...		12	44·8	R
149		η^1 *Coronæ Australis.*							
July 23	...	18	40	28·03	...	133	48	16·8	M
Aug. 12	...		40	28·18	...		48	16·1	R
14	...		40	28·22	...		48	15·5	R
15	...		40	28·05	...		48	14·9	R
16	...		40	28·22	...		48	16·2	R
150		*Anon.*							
Aug. 16	8·0	18	43	52·73	...	125	30	57·0	R
18	8·0		43	52·98	...		30	56·4	R
151		10 *Lyræ β, Var.* 1.							
July 22	...	18	45	47·76	...	56	46	17·6	M
Aug. 8	...		45	47·82	...		46	17·0	R
12	...		45	47·60	...		46	16·7	R
14	...		45	47·64	...		46	17·0	R
152		*Anon.*							
July 22	9·5	18	52	19·19	5	132	56	54·3	M
Aug. 18	9·5		52	19·08	...		56	52·9	R
19	9·5		52	19·02	...		56	50·5	R
28	9·5		52	19·18	...		56	53·3	R
153		*R. P. L.* 131.							
Aug. 13	...	18	52	43·66	3	3	26	20·0	R
Sep. 10	...		52	42·95	3		26	19·5	R
11	...		52	43·06	3		26	19·5	R
13	...		52	44·87	3		26	20·0	R
16	...		52	44·14	3		26	19·1	M
24	...		52	43·64	3		26	19·6	M
154		*Anon.*							
Aug. 2	8·9	18	53	58·75	...	128	6	51·9	R
4	8·9		53	58·69	3		6	50·5	R
12	8·0		53	59·21	3		6	49·8	R
155		*Stone* 10351.							
July 25	...	18	55	22·59	...	128	25	7·7	M
156		*Stone* 10391.							
July 22	...	19	0	37·17	...	132	36	15·2	M
Aug. 7	...		0	37·35	...		36	15·1	R

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	*m.*	*s.*		°	′	″	
157	*Stone* 10399.								
Aug. 13	...	19	1	41·54	...	146	29	31·5	R
15	...		1	41·39	...		29	31·0	R
19	...		1	41·43	...		29	31·7	R
21	...		1	41·63	4		29	31·6	R
23	...		1	41·78	...		29	31·7	R
158	*Stone* 10404.								
July 19	...	19	1	47·31	...	132	4	27·2	M
25	...		1	47·15	...		4	28·5	M
Aug. 14	...		1	47·11	...		4	29·8	R
16	...		1	47·20	...		4	28·4	R
18	...		1	47·31	...		4	28·2	R
159	*Stone* 10428.								
Aug. 8	...	19	5	43·15	...	155	25	29·6	R
12	...		5	42·76	...		25	31·7	R
28	...		5	42·94	...		25	30·4	R
Sep. 1	...		5	43·19	4		25	31·7	R
8	...		5	42·69	...		25	29·8	R
160	*Anon.*								
July 22	9·5	19	10	17·85	...	130	46	28·3	M
Aug. 13	9·5		10	17·67	...		46	27·9	R
161	*Stone* 10465.								
July 19	...	19	11	58·45	4	125	37	52·3	M
25	...		11	58·64	...		37	52·6	M
162	25 *Aquilæ* ω								
July 26	...	19	12	22·31	...	78	36	45·5	M
163	*Stone* 10487.								
Aug. 2	7·0	19	14	18·07	...	119	49	16·5	R
164	49 *Sagittarii* χ^3								
July 22	...	19	18	28·27	...	114	11	19·0	M
25	...		18	28·28	...		11	18·1	M
Aug. 3	...		18	28·34	...		11	19·2	R
165	30 *Aquilæ* δ								
July 26	...	19	19	38·91	...	87	6	55·8	M
Aug. 5	...		19	38·95	...		6	55·2	R
166	*Anon.*								
Sep. 10	9·0	19	26	3·06	4	146	54	53·7	R
167	*Taylor* 8982.								
July 25	...	19	28	40·11	...	148	14	18·9	M
Aug. 12	...		28	40·04	...		14	17·1	R
13	...		28	40·09	...		14	17·4	R
168	*Stone* 10598.								
July 22	6·7	19	32	1·36	...	129	41	38·2	M
26	...		32	1·34	...		41	37·9	M
Aug. 4	6·7		32	1·58	...		41	39·2	R
169	*Anon.*								
Aug. 12	7·0	19	33	29·46	...	126	35	51·6	R
13	7·0		33	29·37	...		35	52·2	R
15	7·5		33	29·47	...		35	51·1	R
16	7·5		33	29·51	...		35	52·0	R
170	*Stone* 10624.								
Aug. 18	7·0	19	36	25·80	...	131	52	59·1	R
19	7·0		36	25·78	...		52	59·0	R
171	*Stone* 10643.								
Aug. 12	6·7	19	39	52·89	...	143	10	12·8	R
15	6·7		39	53·16	...		10	12·6	R
16	6·7		39	53·25	...		10	13·4	R
19	6·7		39	53·17	...		10	13·1	R
172	λ *Ursæ Minoris.*								
Oct. 11	...	19	39	58·57	3	1	2	48·4	M
13	...		39	58·56	2		2	48·4	M

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h.	m.	s.	No. of Wires.	Mean Polar Distance 1884. °	′	″	Observer.
				λ Ursæ Minoris—s.p.					
Feb. 9	...	19	39	57·07	3	1	2	49·2	R
13	...		39	57·18	3		2	48·5	R
16	...		39	57·19	3		2	48·8	R
173				50 *Aquilæ γ*					
July 25	...	19	40	44·58	...	79	40	7·4	M
Aug. 2	...		40	44·58	...		40	5·5	R
4	...		40	44·62	...		40	5·6	R
7	...		40	44·68	...		40	6·3	R
174				53 *Aquilæ a, Altair.*					
July 26	...	19	45	7·35	...	81	26	12·9	M
Aug. 8	...		45	7·51	...		26	13·7	R
16	...		45	7·38	...		26	12·7	R
175				60 *Aquilæ β*					
Aug. 12	...	19	49	36·90	...	83	52	55·1	R
176				*Stone* 10739.					
Aug. 4	6·7	19	52	22·35	...	133	21	31·2	R
177				*Anon.*					
Aug. 16	8·0	19	54	29·70	...	130	18	7·3	R
19	8·0		54	29·90	...		18	7·1	R
20	8·0		54	29·93	...		18	7·2	R
23	8·0		54	30·06	...		18	6·3	R
178				*Stone* 10797.					
July 26	...	20	0	43·49	...	137	24	3·6	M
Aug. 4	...		0	43·42	...		24	3·4	R
179				*Stone* 10803.					
Aug. 5	6·7	20	2	1·27	...	134	13	52·0	R
12	6·7		2	1·18	...		13	53·3	R
15	6·7		2	1·16	...		13	52·4	R
16	6·7		2	1·30	...		13	54·0	R
18	6·7		2	1·13	...		13	53·0	R
180				65 *Aquilæ θ*					
Aug. 20	...	20	5	19·13	...	91	9	52·4	R
21	...		5	19·09	...		9	51·3	R
23	...		5	19·10	...		9	51·9	R
25	...		5	19·18	..		9	53·5	R
26	...		5	19·15	...		9	52·3	R
28	...		5	19·25	...		9	53·0	R
Sep. 1	...		5	19·11	...		9	50·9	R
8	...		5	19·13	...		9	53·1	R
10	...		5	19·10	...		9	52·0	R
11	...		5	19·16	...		9	51·5	R
13	...		5	19·12	...		9	50·3	R
16	...		5	19·18	...		9	53·3	M
24	...		5	19·17	...		9	55·4	M
25	...		5	19·22	...		9	55·4	M
26	...		5	19·16	...		9	54·4	M
Oct. 1	...		5	19·19	...		9	53·1	M
2	...		5	19·21	...		9	54·2	M
3	...		5	19·19	...		9	55·5	M
4	...		5	19·24	...		9	53·7	M
6	...		5	19·34	...		9	55·4	M
181				*Taylor* 9303.					
Aug. 15	...	20	8	3·31	...	117	22	40·0	R
16	...		8	3·21	...		22	41·1	R
18	...		8	3·09	...		22	40·2	R
182				6 *Capricorni* a^2					
Aug. 12	...	20	11	37·19	...	102	54	10·3	R
18	...		11	37·13	...		54	9·2	R
183				24 *Cephei (Hev.), Var.* 2.					
Oct. 3	...	20	12	39·27	3	1	13	17·0	M
184				*Taylor* 9343.					
Aug. 5	6·7	20	13	15·40	...	140	21	21·6	R
185				*Anon.*					
Sep. 13	8·5	20	18	5·71	5	121	8	2·9	R

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	m.	s.		°	′	″	
186			*Anon.*						
Aug. 16	8·5	20	21	33·47	5	138	19	21·9	R
187			*Taylor* 9464.						
Aug. 19	...	20	26	44·81	...	112	37	23·7	R
188			*R. P. L.* 143.						
Aug. 7	...	20	26	50·24	3	5	14	28·1	R
20	...		26	50·55	3		14	27·1	R
Sep. 10	...		26	50·09	3		14	26·0	R
189			2 *Delphini* ε						
Oct. 6	...	20	27	40·17	...	79	5	26·5	M
7	...		27	40·23	...		5	25·7	M
8	...		27	40·25	...		5	24·6	M
9	...		27	40·16	...		5	24·6	M
10	...		27	40·13	...		5	26·1	M
11	...		27	40·26	...		5	25·3	M
13	...		27	40·16	...		5	27·6	M
21	...		27	40·35	...		5	26·1	M
22	...		27	40·19	...		5	26·0	M
27	...		27	40·18	...		5	28·4	M
190			*Taylor* 9561.						
Aug. 12	...	20	37	18·15	...	126	14	39·1	R
191			50 *Cygni a, Deneb.*						
Sep. 13	...	20	37	28·50	...	45	7	59·9	R
16	...		37	28·54	...		7	57·6	M
24	...		37	28·39	...		7	58·9	M
25	...		37	28·46	...		7	58·9	M
26	...		37	28·49	...		7	58·1	M
192			*Taylor* 9573.						
Aug. 20	...	20	39	25·54	...	136	16	38·4	R
23	...		39	25·62	...		16	37·6	R
193			2 *Aquarii* ε						
Oct. 6	...	20	41	23·55	...	99	55	12·3	M
7	...		41	23·66	...		55	11·8	M
8	...		41	23·65	...		55	11·9	M
9	...		41	23·71	...		55	12·0	M
10	...		41	23·70	...		55	10·0	M
11	...		41	23·65	...		55	11·3	M
13	...		41	23·70	...		55	12·8	M
22	...		41	23·62	...		55	10·7	M
27	...		41	23·73	...		55	12·6	M
28	...		41	23·63	...		55	12·1	M
194			*Stone* 11091.						
Aug. 28	...	20	44	45·21	5	142	8	54·4	R
28	...		44	45·13	...		8	56·1	R
Sep. 1	...		44	45·06	...		8	55·8	R
8	...		44	45·05	4		8	55·0	R
195			*Stone* 11115.						
Aug. 25	...	20	47	8·89	4	118	21	48·0	R
26	...		47	8·94	...		21	44·6	R
196			32 *Vulpeculæ.*						
Aug. 28	...	20	49	36·81	...	62	23	1·1	R
197			*Lalande* 40458.						
Sep. 26	...	20	50	37·90	...	100	8	29·1	M
Oct. 1	...		50	37·84	...		8	30·8	M
2	...		50	37·84	...		8	31·0	M
4	...		50	37·85	...		8	30·2	M
6	...		50	37·84	...		8	29·2	M
198			76 *Draconis.*						
Oct. 8	...	20	50	54·94	...	7	53	59·1	M
9	...		50	54·09	...		53	59·2	M
10	...		50	55·68	...		53	58·5	M
11	...		50	55·07	...		53	59·5	M

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884.			No. of Wires.	Mean Polar Distance 1884.			Observer.
		h.	m.	s.		°	′	″	
199		*Stone* 11191.							
Aug. 28	...	20	58	16·69	...	138	59	11·3	R
200		23 *Capricorni* θ							
Aug. 21	...	20	59	25·56	...	107	41	33·7	R
201		*Anon.*							
Sep. 10	8·0	21	0	18·10	...	150	59	23·5	R
24	8·0		0	18·01	...		59	24·4	M
26	8·0		0	18·48	...		59	25·5	M
202		24 *Capricorni* A.							
Aug. 26	...	21	0	20·45	...	115	28	6·3	R
203		61 *Cygni—1st.*							
Sep. 1	...	21	1	41·81	...	51	49	11·4	R
13	...		1	41·86	...		49	12·2	R
204		61 *Cygni—2nd.*							
Sep. 8	...	21	1	43·25	...	51	49	22·0	R
Oct. 1	...		1	43·23	...		49	22·8	M
3	...		1	43·28	...		49	25·4	M
4	...		1	43·13	...		49	23·5	M
7	...		1	43·33	...		49	23·3	M
8	...		1	43·53	...		49	23·5	M
9	...		1	43·22	...		49	24·9	M
28	...		1	43·21	...		49	28·1	M
205		*Anon.*							
Oct. 10	8·5	21	4	28·16	...	100	40	52·3	M
11	8·5		4	28·29	...		40	50·7	M
21	...		4	28·03	...		40	52·4	M
22	8·5		4	28·07	...		40	53·0	M
27	8·5		4	28·32	...		40	53·3	M
206		64 *Cygni* ζ							
Sep. 1	...	21	7	59·89	...	60	14	51·9	R
207		5 *Cephei* α							
Sep. 13	...	21	15	48·69	...	27	54	19·2	R
24	...		15	48·57	...		54	22·7	M
25	...		15	43·26	...		54	19·8	M
26	...		15	48·27	...		54	20·5	M
Oct. 6	...		15	48·85	...		54	22·6	M
11	...		15	48·51	...		54	20·6	M
21	...		15	48·19	...		54	22·3	M
22	...		15	48·87	...		54	18·9	M
208		22 *Aquarii* β							
Sep. 18	...	21	25	27·08	...	96	4	50·0	R
24	...		25	27·15	...		4	51·9	M
209		*Anon.*							
Sep. 24	9·0	21	33	43·75	...	119	45	19·9	M
Oct. 3	9·0		33	48·93	...		45	19·1	M
4	9 0		33	43·83	...		45	20·7	M
6	...		33	43·85	...		45	17·9	M
8	9·0		33	43·67	...		45	19·2	M
210		ε *Indi.*							
Oct. 1	...	21	54	28·83	...	147	15	42·6	M
3	...		54	28·74	...		15	42·6	M
4	...		54	28·82	...		15	41·6	M
6	...		54	28·86	...		15	43·2	M
7	...		54	28·81	...		15	41·1	M
8	...		54	28·98	...		15	40·5	M
9	...		54	28·93	...		15	40·3	M
10	...		54	28·74	...		15	41·2	M
11	...		54	29·03	...		15	41·5	M
13	...		54	29·04	...		15	43·0	M
211		34 *Aquarii* α							
Sep. 24	...	21	59	49·58	...	90	52	59·6	M
212		48 *Aquarii* γ							
Oct. 11	...	22	15	39·77	...	91	58	14·4	M
13	..		15	39·94	...		58	19·8	M
21	...		15	39·76	...		58	19·0	M

Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h.	m.	s.	No. of Wires.	Mean Polar Distance 1884. °	′	″	Observer.
Oct. 22	...	22	15	39·91	...	19	58	20·6	M
27	...		15	39·81	...		58	19·0	M
28	...		15	39·91	...		58	20·7	M
Nov. 12	...		15	39·82	...		58	16·2	R
14	...		15	39·88	...		58	17·2	R
15	...		15	39·94	...		58	18·2	R
17	...		15	39·98	...		58	17·0	R
213	*R. P. L.* 150.								
Oct. 1	...	22	22	23·00	3	4	28	35·3	M
214	*R. P. L.* 151.								
Oct. 2	...	22	22	48·59	3	4	21	43·5	M
3	...		22	49·03	3		21	42·2	M
215	*R. P. L.* 153.								
Oct. 4	...	22	26	44·31	3	2	30	25·0	M
	R. P. L. 153—*s.p.*								
Apl. 16	...	22	26	40·85	3	2	30	30·4	R
216	42 *Pegasi ζ*								
Oct. 1	...	22	35	40·42	...	79	46	27·0	M
2	...		35	40·63	...		46	26·7	M
217	73 *Aquarii λ*								
Oct. 1	...	22	46	33·71	...	98	11	48·8	M
2	...		46	33·58	...		11	48·7	M
3	...		46	33·68	...		11	48·6	M
Oct. 4	...	22	46	33·67	...	98	11	49·0	M
6	...		46	33·71	...		11	48·4	M
7	...		46	33·68	...		11	50·3	M
8	...		46	33·76	...		11	48·5	M
9	...		46	33·65	...		11	49·5	M
10	...		46	33·70	...		11	50·1	M
11	...		46	33·73	...		11	49·5	M
22	...		46	33·59	...		11	47·7	M
27	...		46	33·72	...		11	49·3	M
28	...		46	33·64	...		11	50·8	M
Nov. 12	...		46	33·65	...		11	46·7	R
218	24 *Piscis Australis a, Fomalhaut.*								
Nov. 12	...	22	51	14·28	...	120	14	11·8	M
14	...		51	14·28	...		14	12·7	M
219	6 *Piscium γ*								
Oct. 3	...	23	11	9·07	...	87	21	4·7	M
9	...		11	9·11	...		21	6·7	M
220	8 *Piscium κ*								
Oct. 6	...	23	20	50·09	...	89	22	48·9	M
221	17 *Piscium ι*								
Oct. 8	...	23	33	58·95	...	85	0	10·3	M
222	28 *Piscium ω*								
Oct. 10	...	23	53	21·30	...	83	46	44·9	M

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1885

REDUCED TO JANUARY 1 OF THAT YEAR

Mean Positions of Stars for 1887, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
1	21 Androm. α (*Alpherat*)	2·1	...	0	2	32·82	61	32	1·0	4	0·88
2	8 Ceti ι	3·6	...	0	13	40·11	99	27	0·3	3	0·88
3	63 Piscium δ	4·6	...	0	42	49·12	83	1	47·1	2	0·89
4	43 Arietis σ	5·5	...	2	45	15·27	75	23	1·6	2	0·02
5	1 Tauri ο, Var. 5	Var.	...	3	18	43·95	81	22	9·8	4	0·04
6	18 Eridani ε	3·7	...	3	27	36·37	99	50	28·9	3	0·04
7	37 Tauri A¹	4·4	...	3	58	0·86	68	13	39·8	1	0·04
8	54 Tauri γ	3·9	...	4	13	21·73	74	38	45·9	6	0·05
9	57 Eridani μ	4·3	...	4	39	51·16	93	27	45·0	3	0·06
10	R. P. L. 37	6·8	...	4	51	50·18	4	11	29·7	2	0·04
11	19 Orionis β (*Rigel*)	0·3	...	5	9	6·44	98	19	57·3	1	0·13
12	R. P. L. 40	6·2	...	5	25	50·77	4	51	46·7	1	0·13
13	34 Orionis δ, Var. 1	Var.	...	5	26	14·08	90	22	59·1	1	0·14
14	11 Leporis α	2·7	...	5	27	44·79	107	54	12·7	2	0·07
15	46 Orionis ε	1·8	...	5	30	28·74	91	16	27·8	1	0·14
16	53 Orionis κ	2·2	...	5	42	23·76	99	42	35·9	3	0·14
17	31 Geminorum ξ	3·4	...	6	38	56·87	76	59	0·3	3	0·15
18	9 Canis Maj. α (*Sirius*)	− 1·4	...	6	40	10·02	106	33	41·5	1	0·16
19	51 Cephei (*Hev.*)	5·3	...	6	47	16·51	2	46	44·2	3	0·19
20	14 Canis Majoris θ	4·2	...	6	48	56·42	101	53	51·1	1	0·16
21	W. B. E. VII. 467	9·5	5	7	17	30·14	81	12	17·2	5	0·15
22	3 Canis Minoris β	3·1	...	7	21	1·37	81	29	0·5	4	0·18
23	ξ Argûs	3·4	...	7	44	32·47	114	34	35·8	1	0·17
24	17 Cancri β	3·8	...	8	10	23·15	80	27	58·3	1	0·27
25	43 Cancri γ	4·8	...	8	36	44·78	68	7	33·0	2	0·26
26	65 Cancri α	4·3	...	8	52	18·38	77	42	18·2	1	0·27
27	14 Leonis ο	3·8	...	9	35	7·10	79	36	40·4	1	0·32
28	24 Leonis μ	4·1	...	9	46	20·13	63	27	38·8	2	0·32
29	R. P. L. 72	5·9	...	10	13	5·88	5	10	29·8	2	0·54
30	42 Hydræ μ	4·1	...	10	20	37·48	106	15	34·6	3	0·33
31	58 Leonis *d*	5·0	...	10	54	43·48	85	46	32·6	6	0·34
32	84 Leonis τ	5·1	...	11	22	7·56	86	31	16·5	2	0·34
33	8 Virginis π	4·4	...	11	55	4·96	82	45	18·8	4	0·40
34	R. P. L. 92	6·7	...	12	13	31·41	2	56	12·0	4	0·63
35	7 Corvi δ²	3·1	...	12	24	1·15	105	53	8·9	6	0·39

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	21 Andromedæ α ...	+ 3·0805	+ 0·0182	+ 0·010	− 20·053	+ 0·013	+ 0·16	3215
2	8 Ceti ι	+ 3·0592	− 0·0023	− 0·003	− 20·018	+ 0·034	+ 0·03	14
3	63 Piscium δ... ...	+ 3·1027	+ 0·0079	+ 0·004	− 19·705	+ 0·091	+ 0·04	85
4	43 Arietis σ	+ 3·3026	+ 0·0130	− 0·000	− 15·062	+ 0·323	+ 0·04	400
5	1 Tauri ο	+ 3·2272	+ 0·0115	− 0·005	− 12·974	+ 0·364	+ 0·07	477
6	18 Eridani ε	+ 2·8900	+ 0·0055	− 0·068	− 12·373	+ 0·336	− 0·01	493
7	37 Tauri A^1	+ 3·5325	+ 0·0153	+ 0·005	− 10·178	+ 0·447	+ 0·06	554
8	54 Tauri γ	+ 3·4005	+ 0·0115	+ 0·007	− 8·998	+ 0·446	+ 0·03	583
9	57 Eridani μ... ...	+ 2·9965	+ 0·0055	− 0·000	− 6·871	+ 0·413	+ 0·00	657
10	R. P. L. 37	+ 20·5128	+ 1·4734	...	− 5·877	+ 2·863	..	...
11	19 Orionis β... ...	+ 2·8814	+ 0·0040	− 0·001	− 4·417	+ 0·412	− 0·01	736
12	R. P. L. 40	+ 18·6117	+ 0·5766	...	− 2·977	+ 2·686	...	...
13	34 Orionis δ	+ 3·0636	+ 0·0088	− 0·001	− 2·944	+ 0·443	+ 0·01	787
14	11 Leporis α	+ 2·6447	+ 0·0029	− 0·001	− 2·813	+ 0·383	− 0·01	796
15	46 Orionis ε	+ 3·0429	+ 0·0035	− 0·002	− 2·576	+ 0·441	− 0·01	809
16	53 Orionis κ	+ 2·8442	+ 0·0027	− 0·002	− 1·539	+ 0·414	− 0·00	844
17	31 Geminorum ξ ...	+ 3·3771	− 0·0017	− 0·009	+ 3·392	+ 0·485	+ 0·20	989
18	9 Canis Majoris α ...	+ 2·6810	+ 0·0010	− 0·037	+ 3·497	+ 0·384	+ 1·20	994
19	51 Cephei (*Hev.*) ...	+ 30·0318	− 2·3507	− 0·040	+ 4·107	+ 4·286	+ 0·05	Gr.
20	14 Canis Majoris θ ...	+ 2·7971	+ 0·0004	− 0·011	+ 4·251	+ 0·397	+ 0·00	1011
21	W. B. E. VII. 467 ...	+ 3·2675	− 0·0038	...	+ 6·653	+ 0·447	...	...
22	3 Canis Minoris β ...	+ 3·2603	− 0·0041	− 0·004	+ 6·942	+ 0·444	+ 0·03	1079
23	ξ Argûs	+ 2·5235	+ 0·0008	− 0·001	+ 8·836	+ 0·327	− 0·02	1132
24	17 Cancri β	+ 3·2615	− 0·0072	− 0·004	+ 10·804	+ 0·397	+ 0·04	1180
25	43 Cancri γ	+ 3·4864	− 0·0143	− 0·009	+ 12·671	+ 0·390	+ 0·08	1230
26	65 Cancri α	+ 3·2852	− 0·0098	+ 0·001	+ 13·695	+ 0·345	+ 0·02	1269
27	14 Leonis ο	+ 3·2175	− 0·0093	− 0·010	+ 16·178	+ 0·272	+ 0·02	1360
28	24 Leonis μ	+ 3·4401	− 0·0198	− 0·019	+ 16·738	+ 0·271	+ 0·05	1384
29	R. P. L. 72	+ 9·7109	− 1·5738	− 0·096	+ 17·911	+ 0·629	− 0·04	1399
30	42 Hydræ μ	+ 2·9086	+ 0·0040	− 0·010	+ 18·199	+ 0·171	+ 0·06	1451
31	58 Leonis d	+ 3·1001	− 0·0039	− 0·002	+ 19·245	+ 0·120	+ 0·01	1526
32	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·780	+ 0·066	+ 0·01	1570
33	8 Virginis π	+ 3·0760	− 0·0022	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
34	R. P. L. 92	+ 1·5355	+ 0·0036	+ 0·285	+ 20·019	− 0·022	+ 0·02	1656
35	7 Corvi δ^2	+ 3·1121	+ 0·0118	− 0·014	+ 19·943	− 0·055	+ 0·15	1675

Mean Positions of Stars for 1887, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	′	″		
36	29 Virginis γ¹	3·5	...	12	35	56·03	90	49	42·5	6	0·42
37	43 Virginis δ	3·7	...	12	49	54·70	85	59	16·0	7	0·41
38	47 Virginis ε	3·0	...	12	56	33·07	78	25	58·1	5	0·42
39	4 Bootis τ	4·5	...	13	41	53·61	71	58	46·7	2	0·49
40	93 Virginis τ	4·3	...	13	55	53·76	87	54	29·0	2	0·49
41	22 Bootis *f*	5·4	...	14	21	12·03	70	15	54·5	2	0·49
42	R. P. L. 110	7·1	...	14	52	5·09	3	34	59·5	3	0·32
43	37 Serpentis ε	3·7	...	15	45	10·99	85	10	52·2	1	0·55
44	20 Herculis γ	3·8	...	16	16	55·96	70	34	52·8	1	0·55
45	13 Ophiuchi ζ	2·8	...	16	30	56·13	100	20	14·4	1	0·55
46	35 Ophiuchi η	2·6	...	17	3	53·91	105	35	1·8	2	0·59
47	42 Ophiuchi θ	3·4	...	17	15	4·11	114	53	8·8	2	0·59
48	49 Ophiuchi σ	4·4	...	17	20	54·41	85	45	37·3	2	0·59
49	23 Ursæ Minoris δ ...	4·3	...	18	8	45·85	3	23	19·2	5	0·22
50	λ Ursæ Minoris	6·5	...	19	36	47·33	1	2	23·7	1	0·25
51	53 Aquilæ α (*Altair*) ...	1·0	...	19	45	16·19	81	25	42·2	2	0·75
52	65 Aquilæ θ	3·4	...	20	5	28·41	91	9	18·8	3	0·76
53	2 Delphini ε	4·1	...	20	27	48·84	79	4	46·2	2	0·77
54	2 Aquarii ε	3·8	...	20	41	33·46	99	54	29·9	1	0·77
55	61 Cygni—1st	5·5	...	21	1	49·83	51	48	16·3	1	0·75
56	48 Aquarii γ	4·1	...	22	15	49·15	91	57	21·6	2	0·84
57	73 Aquarii λ	3·8	...	22	46	43·01	98	10	48·7	4	0·86
58	R. P. L. 155	7·0	...	23	24	19·77	4	12	16·2	4	0·60

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	″	″	″	
36	29 Virginis γ^1 ...	+ 3·0754	+ 0·0043	− 0·039	+ 19·808	− 0·078	− 0·02	1698
37	43 Virginis δ ...	+ 3·0522	+ 0·0025	− 0·034	+ 19·580	− 0·103	+ 0·05	1723
38	47 Virginis ε ...	+ 3·0056	− 0·0007	− 0·019	+ 19·447	− 0·114	− 0·03	1785
39	4 Bootis τ	+ 2·8854	− 0·0007	− 0·035	+ 18·104	− 0·188	− 0·04	1810
40	93 Virginis τ ...	+ 3·0488	+ 0·0064	− 0·001	+ 17·543	− 0·222	+ 0·03	1829
41	22 Bootis *f*	+ 2·7953	+ 0·0009	− 0·006	+ 16·366	− 0·242	− 0·03	1864
42	R. P. L. 110	− 11·4956	+ 2·9735	...	+ 14·661	+ 1·138	...	...
43	37 Serpentis ε ..	+ 2·9787	+ 0·0066	+ 0·007	+ 11·128	− 0·365	− 0·06	2005
44	20 Herculis γ ...	+ 2·6480	+ 0·0038	− 0·005	+ 8·718	− 0·351	− 0·05	2084
45	13 Ophiuchi ζ ...	+ 3·2980	+ 0·0087	− 0·001	+ 7·599	− 0·447	− 0·04	2109
46	35 Ophiuchi η ...	+ 3·4342	+ 0·0073	+ 0·000	+ 4·861	− 0·487	− 0·10	2171
47	42 Ophiuchi θ ...	+ 3·6807	+ 0·0080	− 0·002	+ 3·907	− 0·528	+ 0·04	2189
48	49 Ophiuchi σ ...	+ 2·9747	+ 0·0037	− 0·002	+ 3·404	− 0·428	− 0·02	2206
49	23 Ursæ Minoris δ ...	− 19·4892	− 0·2530	+ 0·026	− 0·767	+ 2·841	− 0·04	2395
50	λ Ursæ Minoris ...	− 64·1043	− 28·7964	− 0·050	− 8·219	+ 8·533	+ 0·01	2795
51	53 Aquilæ α	+ 2·8918	− 0·0014	+ 0·035	− 8·890	− 0·374	− 0·38	2524
52	65 Aquilæ θ	+ 3·0955	− 0·0042	− 0·000	− 10·438	− 0·382	− 0·01	2576
53	2 Delphini ε	+ 2·8663	− 0·0013	− 0·001	− 12·056	− 0·330	+ 0·02	2642
54	2 Aquarii ε	+ 3·2503	− 0·0084	− 0·000	− 12·994	− 0·356	+ 0·03	2681
55	61 Cygni—1st ...	+ 2·3347	+ 0·0044	+ 0·344	− 14·288	− 0·233	− 3·23	2744
56	48 Aquarii γ... ...	+ 3·0925	− 0·0042	+ 0·007	− 18·017	− 0·191	− 0·02	2943
57	73 Aquarii λ... ...	+ 3·1328	− 0·0063	− 0·002	− 19·036	− 0·137	− 0·04	3019
58	R. P. L. 155	+ 0·2534	− 0·3341	...	− 19·811	+ 0·003	...	...

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Madison, Wis.	Washburn Observatory.
Mt. Hamilton Cal.	Lick Observatory.
	Prof. E. E. Barnard.
	Prof. & Dir. E. S. Holden.
	J. M. Schaeberle.
New Haven, Conn.	Academy of Arts and Sciences.
	Dr. W. Elkin.
	Prof. and Dir. H. A. Newton.
	Yale College Observatory.
New York	Columbia College Observatory.
Philadelphia	American Philosophical Society.
Princeton, N. J.	Prof. C. A. Young.
San Francisco, Cal.	Prof. G. Davidson.
	The Astronomical Society of the Pacific.
Virginia	The Leander McCormick Obs.
Washington	American Ephemeris Office.
	National Academy of Sciences.
	The Library Weather Bureau.
	Smithsonian Institution.
	U. S. Coast & Geo. Survey Office.
	U. S. Naval Observatory Library.
	Commander C. H. Davis, U.S.N.
	Prof. E. Frisby.
	Prof. Asaph Hall.
	Prof. S. P. Langley.
	Prof. S. Newcomb.
	Prof. W. C. Winlock.
Williamstown, Mass.	Prof. T. H. Safford.
Dorchester Mass.	P. S. Yendell.

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